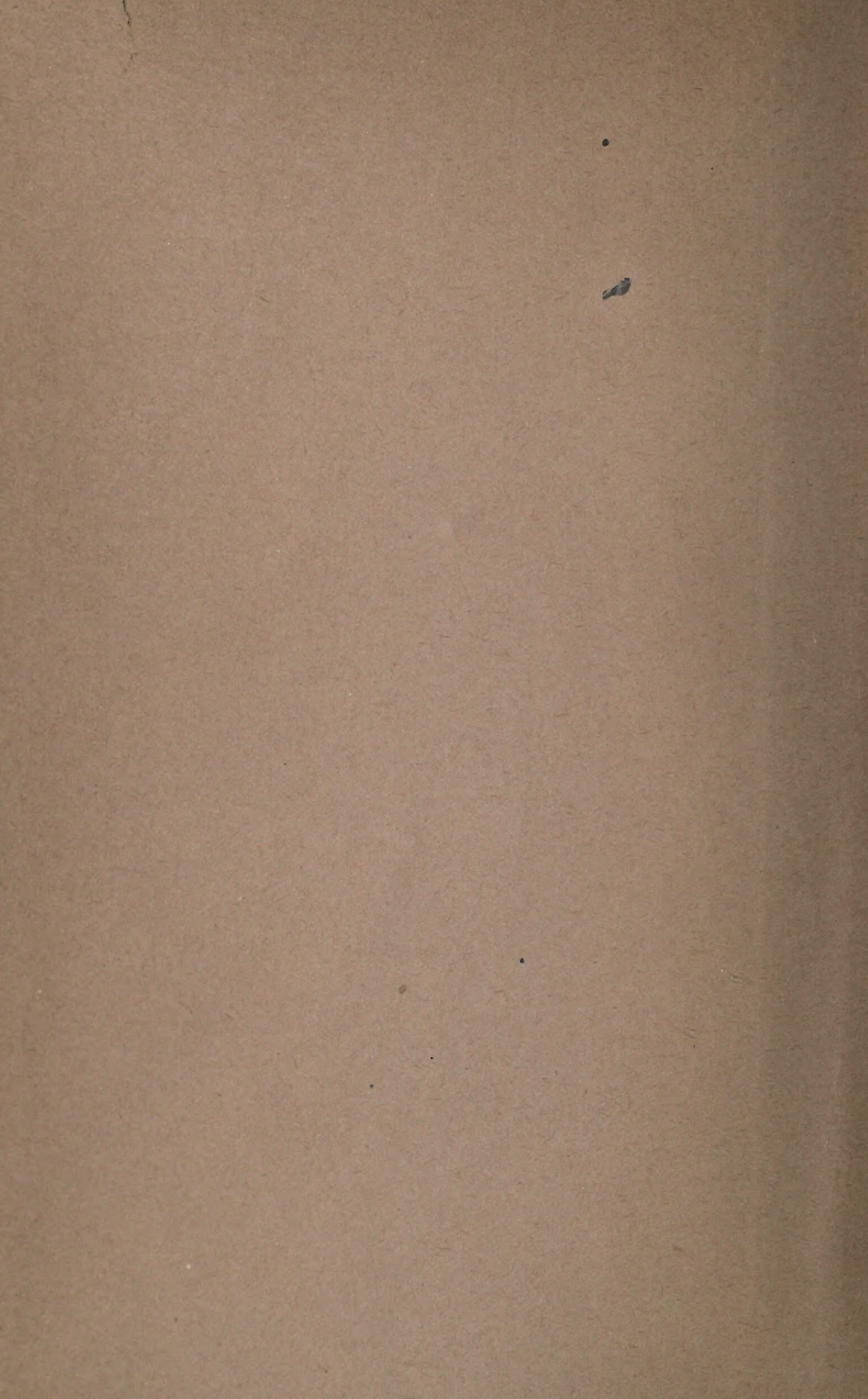
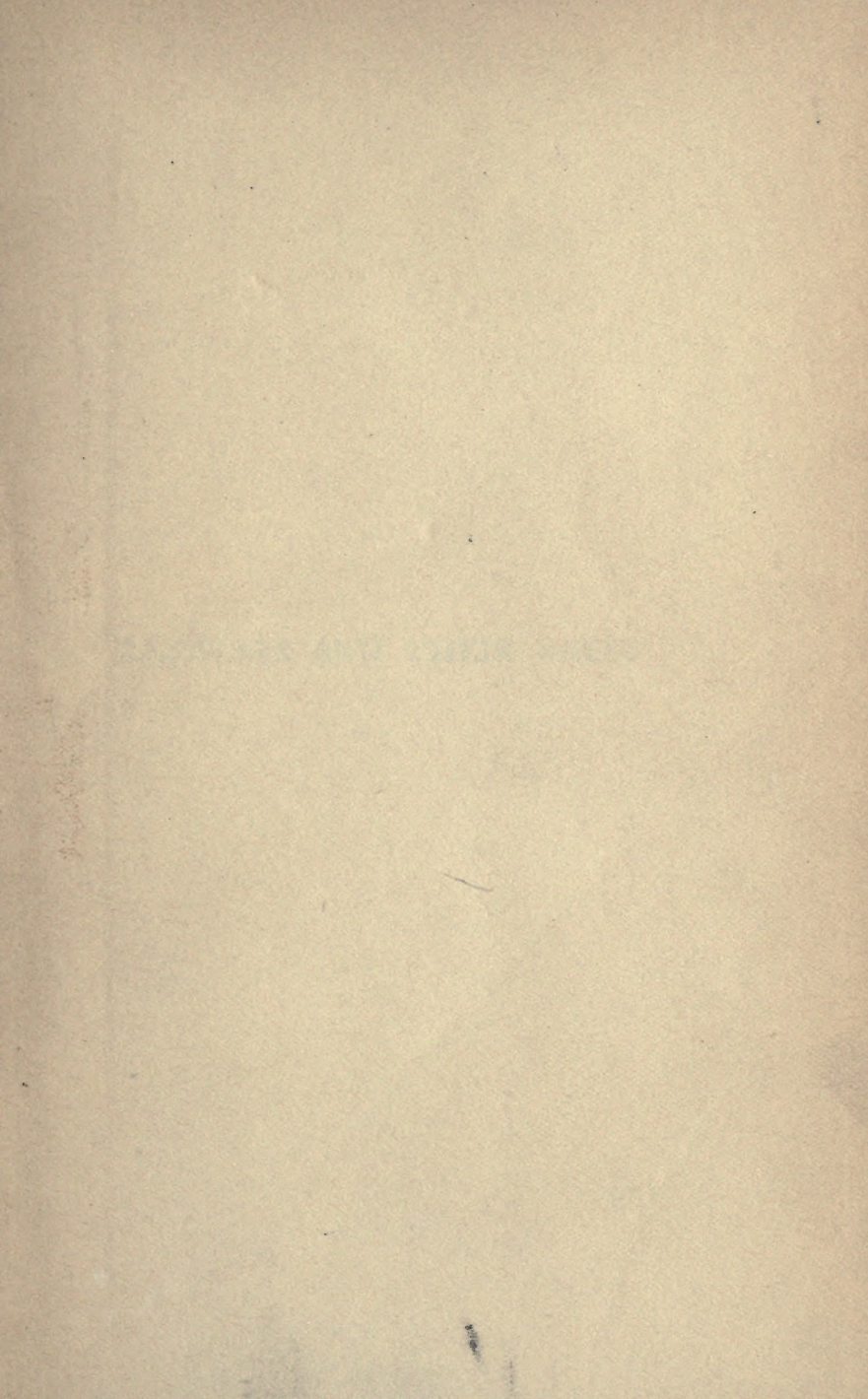


RAILWAYS AND
THEIR RATES

EDWIN A. PRATT





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RAILWAYS AND THEIR RATES

WITH AN APPENDIX ON
THE BRITISH CANAL PROBLEM

BY EDWIN A. PRATT

AUTHOR OF
'THE ORGANIZATION OF AGRICULTURE,' 'AMERICAN RAILWAYS,'
'TRADE UNIONISM AND BRITISH INDUSTRY, ETC.'

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P R E F A C E

THE following pages represent an attempt to set before traders and general readers the actual position of British railways with regard to (1) the complaints advanced from time to time on the subject of rates and charges, and (2) the origin, operation, and circumstances of our own railways as compared with those of railways abroad, and especially on the Continent of Europe.

Much has been heard from the traders themselves, and from their sympathizers in the press, on the subject of their grievances against the railways, but comparatively little has been said with a view to showing that there may be another side to the story. That other side I here seek to present, and those who would pass a fair judgment on the whole matter should, I beg to suggest, duly consider the case for the defence (if I may venture to offer my statement from that point of view), as well as the case so often and so energetically advanced on behalf of the complainants.

To this end I have presented many more facts than arguments, hoping thereby that those to whom my book is specially addressed will thus be placed in a position to form definite, intelligent, and unprejudiced

onclusions of their own, without necessarily—unless I should persuade them thereto—adopting those which I have set forth on my own account. They will learn from my various chapters far more than probably most of them have had the opportunity of learning before as to the origin, legislative control, and financial position of British railways; the anomalous circumstances that necessarily influence their rates and charges; and the conditions under which the general goods and mineral traffic, and also the traffic in certain specified commodities, are conducted. They will further learn what are the leading conditions of foreign railway traffic, and they will find comprehensive sketches of various Continental railway systems, and the operation thereof, affording much information not otherwise available, but absolutely essential to a really fair comparison with British conditions.

These short histories can hardly fail also, I think, to interest readers who may personally have no particular concern in the main questions at issue. The story, for example, related under 'The Railways of Holland,' of how the energetic Englishmen who took charge of the Dutch-Rhenish lines surmounted the grievous problem of a deficiency in traffic by converting their stationmasters and other officials into coal merchants, and changed into a highly prosperous railway system one that had previously been almost ruined by water competition, is not only diverting in itself, but one of the curiosities of economic history.

I would add that portions of the matter contained in Chapters I., VII., VIII., XI., XII., and XIII., are

reproduced from a series of six articles on 'Railways and their Rates' which I contributed to *The Times* in September, 1904, and that Chapter IV. comprises the references to railways in a series of articles on 'Local Taxes and British Traders,' published in the 'Financial and Commercial Supplement' of *The Times* in October and November, 1904.

EDWIN A PRATT.

LONDON,

April, 1905.

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Photographs to Illustrate Southampton Case

RAILWAYS AND THEIR RATES

CHAPTER I

INTRODUCTORY

So important is the part played by British railways in the carrying on of our national commerce and industries that the question whether there is really any good foundation for the complaints which are made from time to time that the railway companies are more or less strangling that commerce and those industries by the imposition of excessive and unreasonable rates is one to which public attention may well be directed.

The position in regard to railway rates is one of such great complexity, and one that is, almost necessarily, so full of anomalies, that to bring home a full comprehension of the subject to the mind of the average trader is an undertaking of very considerable difficulty. Few persons beyond those directly connected with railway operation can realize, for instance, all that has been involved in the adaptation of railway rates to the varying conditions of a vast number of trades and interests in regard to a large number of cities, towns, and villages. Thus I find that in 1846 the list of rates and charges, in respect to merchandise, in force on the London and North-Western Railway, for example, comprised only fifty-seven articles. In 1852 it still occupied only two pages of a pamphlet-sized book.

Twenty years later it had grown to thirty or forty pages. To-day the 'General Railway Classification of Goods by Merchandise Trains,' applying to all railways, is a volume of close on 300 pages, containing almost every conceivable article that any trader or private individual is likely to send by rail. When, again, it is considered that every station on a great railway system must have its separate rate-book, giving the rates and charges in respect to the transport of almost every article on the list to every station on the system, and also to all the points on other companies' lines to which through traffic may be sent, whether at home or abroad, it is obvious that the number of rates in force on even a single great railway system may be almost illimitable. Authorities on the subject content themselves with telling one vaguely that the number in operation on their own particular system may be 'anything from 20,000,000 to 40,000,000.' They consider that life is too short, and the demands on a railway man's time too numerous, to allow of a more exact calculation.

Then the conditions under which our railways—successors to the carriers by road or water—came into being; the heavy expenses incurred in their construction; the effect of Government control in depriving them more or less of power of elasticity in the matter of rates and charges, and, by various exactions and requirements, swelling the proportions of their capital outlay and working expenses; the burden of local taxation, with its inevitable reflex action on railway charges in general; the dependence of the British Isles on imports of foreign food-supplies; and, finally, the fact that owing to our geographical position the question of sea competition, or of complications resulting from ocean or river traffic, is ever coming to the front, are merely some of the problems and considerations that

arise when once the subject of railway rates is entered upon with any degree of fulness.

In all these circumstances it is not surprising that there should be, from time to time, a parade of anomalies and grievances. Not even the most earnest defender of our railways would affirm that their rates are always logical in their application. It is possible that if the railways themselves—keeping, as it were, from one generation to another their finger on the pulse of British trade, and, with their widespread organization of officials, knowing instantly when anything has occurred to its prejudice—had had a somewhat freer hand in conducting their relations with the traders on strictly commercial lines, the general situation would have been better all round than is the case under the unduly rigid conditions by which they find themselves bound to-day. Certain it is that the railways have far more to hope from encouraging British trade and industry than from strangling it; and certain also it is, judging from the very modest return which the average railway shareholder gets on his investments, that if of late years British trade and industry have not prospered as they should, it is not because of any excessive increase in railway dividends.

As regards general complaints, attention might first be directed to the argument which is constantly being used that British railway rates are unreasonable because it costs less to send commodities long distances by sea than it does to send them comparatively short distances by land. The editor of a South Wales newspaper, for instance, evidently thought he had said the last word on the subject when, as a footnote to a letter from a correspondent, he wrote:

‘As to the pressure of railway rates in this country, it is enough to say that coal for the Egyptian railways

is carried from Cardiff to Port Said (3,000 miles) at less cost than it is taken to London or Southampton.'

I will assume for the sake of argument that the facts of the case are precisely as here stated—that is, that a cargo of coal can be sent by sea from Cardiff to Port Said, a distance of 3,000 miles, at less cost than the same quantity of coal can be taken by rail from Cardiff to London, a distance of 170 miles. Is there any line of argument by which this apparent anomaly could be accounted for?

Let us take, first of all, the cost that will be incurred in conveying the coal from Cardiff to Port Said. Here, of course, the first essential is to have a tramp steamer in which to carry the coal. The capital invested in a tramp steamer is inconsiderable, and when the steamer has once been built, it can be taken to any port where there is business to be got. At Cardiff it simply pays certain dues for the temporary use of docks in which the owner of the vessel or the person who charters it may not himself have invested a single penny. There will also be the cost of loading at Cardiff to be defrayed, just as there will be the cost of unloading when the vessel reaches Port Said. The intermediate expenses will be—value of coal burned, wages of master and crew, insurance, and so on, with another set of dock dues at the end of the journey. The voyage across the sea costs nothing for right of way, and the difference between a journey of 1,000, 2,000, or 3,000 miles will be little more than a matter of coal consumption and wages. And now let us consider the cost that must be incurred before the same quantity of coal can be conveyed by railway from Cardiff to London, because the whole question, if judged from a business standpoint, must turn on capital outlay and working expenses.

In the former case we saw that the capital outlay was

represented by one tramp steamer. In the case of the railway company, the corresponding item will be a locomotive and trucks. But while the tramp steamer can use the docks of an independent company at Cardiff, and only pay so much for the privilege, the railway company must have a station of its own at the port. Still more, while the owner of the tramp steamer pays nothing for crossing the sea, the railway company must have bought up the whole of the land over which the coal train will run between Cardiff and London; and, in the neighbourhood of London especially, the cost of that land will have been enormous. Along the line of route thus secured the company must next have laid metals for the trains to run on, and also have constructed bridges, viaducts, and tunnels; and it must not only maintain the line in good condition, but provide elaborate signalling arrangements throughout, all these things involving the expenditure of a great sum of money and the employment of a large staff of men. The ship that crosses the ocean has no such expenses to consider when it fixes the amount it proposes to charge, and neither is it subject to anything like the same degree of costly Government control and regulation. Then in the district of each local authority through which the railway will pass between Cardiff and London the company must pay rates and taxes in respect to every building it owns and every mile of line it operates. It must help to keep the poor; it must aid in providing the local residents with sewers, etc.; it may have to pay towards the provision of baths, parks, libraries, and possibly Sunday bands as well; and it may also be called on to contribute towards making good the loss sustained on a variety of municipal undertakings in the way of electric lighting and other enterprises, including, possibly, electric tramways com-

peting with its own system. Once again, the tramp steamer receives no demand notes on account of such things as these anywhere between Cardiff and Port Said; and while, as I have said, 1,000 miles more or less in the voyage of a cargo steamer will be a question mainly of coal consumption and wages of crew, every additional mile added to a railway means a proportionate increase in capital outlay and expenses. Again, unlike the steamer, which can go to any port it pleases, the railway, once made, is a fixture, whether the traffic is remunerative or not. To begin with, therefore, it is obviously unfair to allege against railways that they are crippling trade merely because, in the nature of things, they are bound to charge more for land transport than would be charged for sea transport.

Passing on to another stock complaint against British railway companies, we have the accusation that (apart altogether from any difference between sea transport and land transport) railway rates on this side of the Atlantic are substantially higher than they are on the other side. We have been told that the average rate per ton per mile in the United States is, 'in round figures, something like one halfpenny'; and the President of the Iron and Steel Institute told the members of that body a few years ago that traffic was being carried over some of the American railways at 'one-sixth of a penny per ton per mile for long distances.'

If we accept the figures as here presented, there are, nevertheless, several important factors which must not be left out of consideration. In the first place, one must remember that the greater proportion of the American railways have cost very much less to construct than our British railways have. Except in the immediate neighbourhood of great cities, the land has cost less—in many instances it has cost nothing at all,

and extensive areas on each side of the line have been thrown in; the cost of laying the lines has been less, and there has been a considerably smaller expenditure on stations, bridges, tunnels, signalling, and working staff. The American railways ought, therefore, to be well able to carry traffic at a lower relative cost than those of our own country. Then the character of the traffic carried in the United States can hardly be compared with that of our own. On the other side of the Atlantic the freight goes mostly in huge quantities for great distances. On this side it takes the form mainly of small consignments carried for short distances. In America complete train-loads of fruit, grain, or other merchandise will travel any distance up to 1,000, 2,000, or even 3,000 miles. A haul of from 800 to 1,000 miles is thought no more of there than a haul of 100 miles would be here.

It is the combination of this volume of goods traffic with the length of haul that allows of such figures being worked out as those stated above. The terminal charges remain the same whether a consignment be sent a short or a long distance; but when one applies to an American haul of 1,000 or 2,000 miles the principle, already followed on this side, of reducing the rate per mile according to the distance carried, the charge per ton per mile may eventually assume very small dimensions. When once the freight has been loaded up and started on a long journey, the cost in respect to each additional 100 miles, after a certain number have been covered, becomes almost nominal, though the greater distance will considerably diminish the figures when one comes to calculate the cost per ton per mile. Even allowing for the large amount of short-journey business done in the New England States, and in the suburbs of American large cities generally, the average distance over which

freight is carried in America works out at close on 125 miles, while the average haul in this country is not more than about 30 miles, and on many British lines it is considerably less. There is the still further consideration that the English rates will generally include the cost of collection and delivery. The American rates do not. Spread over a short haul, the extra charge made by an English railway company on account of this collection and delivery will make an enormous difference to the mileage rate.

Here, therefore, we get some fundamental considerations which show that there is no fair basis of comparison between the average cost per ton per mile in Great Britain and in the United States if no allowance be made for differences in length of haul and in bulk of consignments. A fairer test is to compare corresponding rates for corresponding distances, so far as these are within geographical possibilities on our own side. Such a comparison has, in fact, been drawn up on an exhaustive scale by the officials of the Caledonian Railway Company, the tables compiled by them (in order to contrast Caledonian rates with those in operation on certain leading American lines) occupying no fewer than forty pages of printed foolscap. Without attempting to reproduce any of the elaborate tables of statistics, I may say that the results of the comparison thus made are especially instructive. Speaking generally, they show that for short distances the American rates are higher than those of the Caledonian Railway, while for long distances they are lower. The rates for groceries, draperies, and tea from Jersey City and Philadelphia, for distances of from 10 to 160 miles, and from New York for distances of from 10 to 50 miles, are higher than the rates charged by the Caledonian Railway Company for the same distances; while for more than

50 or 160 miles the Caledonian rates are higher than the American. For cotton goods, wines and spirits, hardware, sugar, jellies in cases, etc., the dividing-line between the rates of the two countries is at 50 miles, and for grain, timber, iron and steel, and cement, the dividing-line occurs at 40 miles. Under those distances the Caledonian rates are lower than the American; above them they are higher.

Thus far I have dealt with comparisons between British railways and American railways. But there arises the important consideration that a good deal of the 'small parcels business' done by the railways on this side of the Atlantic is left on the other side to the 'express' companies; so that the British trader may further want to know whether or not, when he sends small consignments by rail, he is paying more for them than the American trader pays to his express companies for the transport of parcels of equal weight for equal distances. Let us, therefore, see how these two sets of charges compare the one with the other.

Taking, for the purposes of illustration, the parcel rates of the Great Western Railway Company, I find that a comparison with the rates of the American Express Company in respect to parcels up to a weight of 25 pounds carried distances up to 200 miles works out as shown in the table on p. 10.

From this table it will be seen that, so far as regards small parcels, the British trader who sends by rail has a distinct advantage over the American trader who consigns by an express company, though the charges become equal when we get to a parcel weighing 25 pounds and going a distance of 200 miles. If the comparison were followed up still further, to show the respective charges for larger parcels carried greater distances, the results in regard to these will favour

Weight of Parcel.	Great Western Railway Company.								American Express Company.							
	Miles.								Miles.							
	10.	20.	30.	50.	100.	200.			10.	20.	30.	50.	100.	200.		
lb.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
2	0 4	0 4	0 4	0 4	0 4	0 4	0 4	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$
5	0 6	0 6	0 6	0 6	0 6	0 7	0 7	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 5 $\frac{1}{2}$
10	0 6	0 6	0 6	0 6	0 8	1 0	1 0	1 0 $\frac{1}{2}$	1 3	1 3	1 3	1 3	1 3	1 3	1 8	1 8
15	0 6	0 6	0 6	0 6	0 9	1 2	1 7	1 0 $\frac{1}{2}$	1 3	1 3	1 3	1 3	1 3	1 3	1 8	1 8
20	0 6	0 6	0 6	0 6	0 11	1 4	1 10	1 0 $\frac{1}{2}$	1 3	1 3	1 3	1 3	1 3	1 3	1 10 $\frac{1}{2}$	1 10 $\frac{1}{2}$
25	0 7	0 7	0 7	1	1	1 7	2 1	1 0 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 5 $\frac{1}{2}$	1 5 $\frac{1}{2}$	2 1	2 1	2 1

the express company. The position in the United States is this: The ordinary railway companies there do not care to handle the small parcels business at all (not wanting to be 'bothered' with it, as an American railway official once put it to me), and they leave it entirely to the express companies. These, in the absence of a parcels post, work the business for all it is worth, and charge just as much for carrying small parcels as they think the American public will stand. Hence it is that the American trader will have to pay rs. 0 $\frac{1}{2}$ d. to his express company for the same service as the English trader gets for 4d. But as soon as the American express companies begin to handle big parcels, and carry them considerable distances, their monopoly is at an end, for they come into competition with the railways, and from that point their charges show a substantial decrease in proportion.

With the help of these very practical comparisons, we gain some actual facts with which the British trader has much more concern than he has with calculations as to cost per ton per mile founded mainly on hauls of prodigious length beyond the possibilities of his own railways; and what we learn, in effect, is this—that,

WHAT A FAIR COMPARISON SHOWS II

taking the average distance for which consignments on British railways are actually sent, and comparing the charges made on this side in respect thereto with the corresponding charges in the United States, not only does the British trader pay no more than the American, but he even pays less.

CHAPTER II

RAILWAY RATES LEGISLATION

No clear understanding of present-day conditions can be gained in respect to the complicated question of British railway rates without some degree of knowledge respecting the events that have led up to them; and although it may be a bold undertaking to attempt to give the past history of railway rates legislation in a single chapter, a brief outline of the leading points may be offered in the interests of the general reader. Such outline should have the greater value, from the present point of view, because it will help the said general reader to realize the extent to which the difficulties and complications that have arisen may be due, directly or indirectly, to the action of Parliament itself in tying the hands of the railway companies as the result of its endeavours, not merely to define general principles for the conduct of railways, but to regulate the commercial relations between them and the traders down to almost the smallest details.

In the initial stage of their history, before even the introduction of the locomotive, it was assumed that railroads would act as feeders to the canals, and that railway companies would merely own the track they provided, charging certain tolls to carriers and others who would send their own horses and vehicles along the new roads, paying for the use thereof in the same

way that the patrons of canals paid for the use of the waterways. In 1823 authority was given to a railway company to further supply haulage power by means of steam-engines, and to charge 'locomotive toll' in addition to the road toll. Fifteen years later it was still assumed that 'engines belonging to different parties, coach proprietors and others,' would run on the railways, in competition with those of the railway companies; but the arrangement was one that presented obvious difficulties, and in course of time it was allowed to fall into desuetude.

Meanwhile, a step further had been taken. Having now supplied not only track, but also motive power, why should not the railway companies themselves become carriers alike of passengers, merchandise, and live stock, instead of leaving this branch of the business to independent parties? Accordingly, in Acts of Parliament passed between 1833 and 1840 railway companies were authorized, 'if they shall think proper,' not only to provide engines for use by other persons, but also to employ such engines themselves, 'and in carriages or waggons drawn or propelled thereby to convey upon the said railway all such passengers, cattle and other animals, goods, wares and merchandise, articles, matters, and other things, as shall be offered to them for that purpose.' In addition, therefore, to the original road toll and the subsequent locomotive toll, the companies were now authorized to charge for the services they rendered as carriers, though at first the scale of charges falling under this third denomination was not specified, the only stipulation being that such charges should be reasonable.

As the carrying business drifted more and more into the hands of the railway companies—which by this time had a monopoly of the supply of locomotive

power on their own lines—it was laid down that where the companies performed all three services they should charge a single inclusive toll, which would be less than the aggregate of the three separate tolls. This became the practice from about 1845, and the ‘carrying’ work done by the railways, as the outcome of the direct relations they opened up with the public, steadily increased, although the large firms which themselves collected from the public, and consigned by rail in bulk, still handled most of the business in general goods, and even remained, for some years, the recognised agents of certain of the lines, which left this branch exclusively in their hands. One sees, therefore, that the transition of railway companies into ‘common carriers’ was a gradual one, and it is interesting to recall the fact that the first ordinary railway company that carried a waggon of coal on its lines was so afraid of the possible disapproval of the passengers that it carefully covered the coal over with a tarpaulin.

With the Railway Regulation Acts, 1840-1842, began the general powers of supervision over railways exercised by the Board of Trade; but for another ten years or so the railways were, with few exceptions, left to arrange the details of their business with their patrons, the efforts of the Legislature being directed mainly to seeing that the powers conferred on the companies were not abused. It was during this period—namely, in 1847—that the railway companies established the Railway Clearing-House as a means of regulating the expenses of interchange of through traffic and adjusting accounts.

In 1852 the number and magnitude of proposed amalgamations between railway companies led to the appointment of a Parliamentary Committee, on whose report, presented in 1853, the Railway and Canal Traffic Act of 1854 was passed. Under this Act every

company was required to afford all reasonable facilities for the receiving, forwarding, and delivery of traffic ; undue or unreasonable preference or prejudice in favour of or against any particular person or company, or any particular description of traffic, was prohibited ; and companies whose systems formed parts of a continuous line of communication were required to afford all due and reasonable facilities for the interchange of traffic without delay, preference, or obstruction.

In respect, however, to their rates and charges, the railway companies retained a large degree of freedom. Subject to specified maxima, Parliament had not attempted to regulate the rates actually enforced. The Railway Clauses Consolidation Act, 1845, required them to 'accommodate' their rates to 'the circumstances of the traffic,' and a Committee appointed in 1865 to inquire into the subject of railway companies' charges reported they did 'not consider that it would be expedient, even if it were practicable, to adopt any legislation which would abolish the freedom railway companies enjoyed of charging what sum they deemed expedient within their maximum rates, when properly defined.'

The year 1872 marks the dividing-line, as it were, between the ancient history of British railways and the modern period. Numerous further proposals for the amalgamation of existing companies led, as in 1852, to the appointment of a Committee of Inquiry, and on this occasion the investigations instituted covered a much wider ground than before.

In the way of actual recommendations, the Committee advised the creation of a new tribunal, to be known as Railway and Canal Commissioners, to which body there should be transferred the duty of enforcing the Traffic Act of 1854, which had hitherto rested with the Court

of Common Pleas, together with certain other duties in connection with railway and canal companies. The said tribunal was duly called into being by the Act of 1873, for a period of five years in the first instance, subsequently renewed.

The Committee of 1872 further recommended that a new and uniform classification of goods was both desirable and practicable, and that the companies should all be compelled to adopt, as between themselves and the public, the Railway Clearing-House classification, and adapt their statutory rates to it; but Parliament did not then see its way to making such classification compulsory.

All this time trouble had been developing in respect to the question of terminal charges. It has been shown that the maximum rates which railway companies had been authorized to make were really a combination, on a reduced scale, of three originally distinct tolls—(1) a toll for the use of the track; (2) a toll for the provision of haulage power; and (3) a toll for the conveyance of merchandise. But when the companies themselves became common carriers, there was much that they had to do besides conveying goods from one point on their line to another. They had, in the first place, to provide goods depots, which became the equivalent to the warehouses of the carriers they were superseding, such depots being wanted so that the goods could be collected and taken care of at one end before being despatched by train, or received at on their arrival at the other end. In the second place, there was required of them a group of services which, when the carrier and the railway company were separate partners, were performed by the former. Among these services were loading and unloading, covering, checking, labelling, invoicing, etc., together, possibly, with collecting and delivering from

or to the residence or place of business of the consignor or consignee. All these things, in combination, necessitated the organization of a special staff of men, with horses, vehicles, goods depots, etc., and the companies claimed that they were entitled to impose 'terminal charges' in respect to such further services, in addition to the statutory allowance for haulage by train.

As the outcome of these conditions, much friction arose between the companies and the traders, especially in those cases where the charges in respect to terminals caused the sum total to exceed the authorized maximum. This they almost necessarily did in the case of short-distance traffic.* Grievances were advanced in other directions besides, and in 1881 a Select Committee of the House of Commons was appointed to inquire into the working of the Act of 1873, and also into the general relations between railways and traders.

The Committee investigated a large number of complaints, which, generally speaking, fell under the following heads :

1. Rates alleged to be often excessive and illegal.
2. Variations in rates without any corresponding variation in the cost of the service to the companies, and often in favour of particular towns, or of export or import traffic.
3. Difficulty in obtaining information as to what rates were authorized, arising from multiplicity of private Acts and imperfect classification.

* Under the schedules now in force the conveyance rate in respect to an article in Class 5—pianos, for example—taken a distance of 6 miles would be 2s. 2d. To this the railway company would add 7s. for terminal services, exclusive of cartage, which would probably come to 5s. Of the total, therefore, of 14s. 2d., the charges for services other than haulage by rail would be 12s. They would remain the same if the article in question were conveyed 60 miles instead of 6 ; but in that case they would, of course, form a much smaller proportion of the sum total.

On the first of these points the Committee found that the question really at issue was the right of the companies to charge for terminal services ; and, in view of the large sums which had been expended to allow of such services being rendered, the Committee recommended that the right to charge for 'station terminals'* should be authorized, the companies being required, however, in the interests of the traders, to notify in some public way the amounts they claimed to be entitled to charge.

The 'variations in rates' covered a great deal of the still familiar ground as to anomalies and preferential rates, defended by the railway companies on the ground that if some goods were not carried at lower rates than others the traffic would go by some other route, or not be forwarded at all ; and complained of by the traders on the ground that the policy in question 'diverted trade from its natural channel.'

As a sample of the complaints laid before the Committee, reference may be made to the case of the sugar refiners in Greenock and London respectively. Thirty-nine towns in England to which sugar was then being sent were at an average distance of 292 miles from Greenock, and of only 150 from London, yet the railway rates to them for the carriage of sugar were about the same, whether the sugar was sent from Greenock or London. In this way Greenock was enabled to compete with London, and the railway companies concerned secured freight which they would not have got at all had their charges been fixed on a strictly mileage basis. But the London refiners complained, because the lower rates conceded to Greenock 'diverted trade from its natural channel,' which in this instance they regarded as London. The real grievance was, of course, that in the said thirty-

* This is now a technical term distinguishing charges for accommodation from charges for services.

nine towns the competition of Greenock compelled the London refiners to accept lower prices for their sugar, and do a smaller trade, than they could have secured had Greenock been virtually shut out of the markets there by the operation of equal mileage rates. Greenock's advantage, therefore, became London's disadvantage; but it was obviously to the public interest that the price of the commodity in question should be kept down by putting the two groups of traders on the same footing, irrespective of geographical distinctions. This was the view taken by the Committee, who said in their report:

But for the competition introduced by the low rates given by railway companies, trades would be much more local, and the trader who was nearest the market would probably make a larger profit. On the other hand, this competition cannot but be advantageous to the public. That Greenock sugar-refiners should be in the same market as the sugar-refiners of London, while it may be a grievance to London refiners, must be an advantage to Greenock refiners, and cannot be a disadvantage to buyers of sugar.

On the last of the three points given above, the Committee made a recommendation which was to lead to the starting of a new era in the relations between Parliament and the railways. They advised that a uniform classification should be adopted throughout the whole railway system.

The railway companies themselves were quite as anxious as the traders to see a uniform classification brought about, and much in this direction had already been done, though the task was one of great complexity, owing to the magnitude and the multiplicity of the interests involved. Following on the report of the Committee, nine of the principal railway companies, at very considerable expense, voluntarily arranged a joint classification and schedule of maximum rates, providing also for terminals; and it was hoped that this classification—based on that of the Railway Clearing-House—

would become general. But the traders raised an active opposition, based mainly on the ground that the proposed new legislation conceded the question of terminals, and the Bills introduced to give effect to the said arrangement did not reach the second reading.

These events led up to the passing of the Railway and Canal Traffic Act, 1888, under which the requirement was made for the revision by all railway and canal companies of their maximum rates. Each company was, in the first instance, to prepare a revised classification of goods and a revised schedule of maximum rates, and submit them to the Board of Trade. That body would then receive and consider any objections lodged with it by traders, and endeavour to arrange matters as between the companies and the traders. Failing this, the Board was itself to determine upon classification and schedules. In either case the revised classification and schedules were to be embodied in Provisional Orders, Bills for the confirmation of which were to be introduced into Parliament, the rates and charges set forth therein thus becoming the recognised maxima of the companies concerned. Terminal charges were to be included in the revised schedules, so that this much-discussed question was at length set at rest.

The Act of 1888 further prohibited differential rates in favour of or against foreign merchandise, though, subject to that prohibition, competition was recognised as justifying differential charges, so long as public interests are served thereby, and provided the inequality cannot be removed without unduly reducing the rates charged to a complainant. The system of 'grouping,' under which the same rates are charged to or from all the places within a certain area, was expressly legalized, so long as the distances are reasonable and no undue

preference is created. It was further provided, among other things, that in all cases where unequal charges are shown to exist in respect of similar traffic or similar services, the burden of justifying the inequality shall fall on the railway company. Under a 'conciliation clause,' traders and local authorities who think that they, or persons in their district, are being charged or treated unreasonably or oppressively by a company may complain to the Board of Trade, which body is authorized both to call on the company for an explanation and to endeavour to bring about an amicable settlement of the differences between the parties.

Still another result of the Act of 1888 was the conversion of the Railway and Canal Commissioners into a permanent body, with revised constitution and extended functions.

The railway companies presented the new classifications to the Board of Trade by the specified date—February, 1889—and the Board of Trade then invited the criticisms of traders. This was a case of 'opening the flood-gates' with a vengeance, for no fewer than 4,000 objections came to hand from over 1,500 objectors. Many of them, as stated in the report subsequently presented by Lord Balfour of Burleigh and Mr. (afterwards Sir) Courtenay Boyle, to whom they were referred for investigation, certainly dealt with details of classification; but 'evidence was abundantly forthcoming to show that the chief object of a large section of the traders was, not to revise statutory powers to charge, but to obtain a reduction in actual rates.' In illustration of this fact, the following 'characteristic letter' (as it was called) from a trader at Berwick was quoted in the report:

What we want is to have our fish carried at *half* present rates. We don't care a ——— whether it pays the railway or not. Railways

ought to be made to carry for the good of the country, or they should be taken over by the Government. This is what all traders want, and mean to try and get.

The public sittings held by Lord Balfour of Burleigh and Mr. Courtenay Boyle for the purpose of investigating the objections raised were held partly in Westminster and partly in Edinburgh and Dublin. They extended over eighty-five days, and the minutes of proceedings occupied more than 3,700 pages. All this mass of matter had to be sifted and digested by the representatives of the Board of Trade, who then presented what they considered a 'fair and reasonable' classification and standard schedule for general adoption, subject to certain modifications to meet the varying circumstances of particular companies. In drawing up the revised classification, the Board of Trade retained the number and, except for a slight variation, the names of the classes in the Railway Clearing-House classification; but considerable alterations were made in the actual entries, while the new standard schedule meant the reduction of a large number of rates.

The next step taken was the embodying by the Board of Trade of the revised schedule in Provisional Orders applying (in the first instance) to nine of the principal railway companies, Bills for the confirmation of such Provisional Orders being introduced into Parliament in the Session of 1891. Petitions against these Bills were presented alike by the railway companies and by traders, and the whole matter was referred to a Joint Committee of both Houses of Parliament, and made the subject of a prolonged inquiry. The final outcome of the new conditions brought about was thus described by Sir Henry Oakley :

Practically they amounted to a revolution. The maximum powers were reduced almost universally. The classifications of

the Companies' Acts were abolished, and a new and uniform classification introduced; new scales for calculating rates, fixing our terminal charges and other allowances; new scales for live stock, for empties, for fish, for milk and perishables carried by passenger trains, which for the first time we were put under Parliamentary obligations to carry. Up to that time we were not under an obligation to carry any goods by passenger train; but it was decided that we should be so compelled in the future, and they fixed rates within which we must carry. . . . Then there was a new system of calculating rates established. It was not so much per mile for any distance beyond 6 miles, as it was in the original Acts, but for the first 20 miles a certain rate, for the next 30 miles a certain less rate, and for the next 50 miles a still further reduction, the effect being that by that mode of calculating the longer the distance the goods were carried, the less the average rate per mile that was to be charged.

When the Joint Committee had completed their labours, the Bills confirming the Provisional Orders in the case of the nine companies were passed in 1891 under the title of 'Railway Rates and Charges Orders Confirmation Acts,' and the Board of Trade then issued schedules for the remaining companies. These, to the number of twenty-six, were passed in the session of 1892, the date fixed for the coming into operation of the whole of the Acts being January 1, 1893.

The task of preparing the new rate-books was one that involved very considerable labour, and there was comparatively little time in which to get through the task. Sir Henry Oakley subsequently showed that in the case of the Great Northern Railway Company alone the rates in operation numbered something like 13,000,000, while the period within which certain of the companies had to compile their new books did not exceed four months. Whatever the precise degree of trouble incurred by the companies, the results of their labours, in the form of the new classifications and revised rates, were received with what has been described as 'a howl of execration.' A large number of the actual rates had been reduced below the figure at which they

previously stood, but others had undergone changes which, while the maximum authorized by Parliament had not been exceeded, represented an increase over the actual rates enforced before the new scales came into operation. The traders had been ready enough to accept all the reductions they could get, but any increases were regarded as involving a serious dislocation of business.

In the discussions that arose much was said as to the railway companies having adopted a policy of 'recoupment.' The results complained of were, no doubt, due in part to a desire, when the whole system was being reorganized, to effect a 'levelling up,' in which, while some persons gained, others might be prejudiced, such desire being further stimulated by an anxiety on the part of the companies to avoid any serious reduction in their revenue. To what extent the adoption of such a policy as this was, or was not, legal, logical, and justifiable, is a disputed question, which I need not now stop to discuss. It may be, also, that in trying to get rid of 'anomalies' of the type of some of those investigated by the Committee of 1881, the companies satisfied one set of traders, but only at the expense of another.

It is still further possible that, owing to the extreme pressure at which the work of compiling the new rate-books had been done, errors were made which represented genuine hardships to individual traders; while, on account of this pressure and the impossibility of completing the task within the allotted period, certain 'special rates' had been temporarily suspended altogether, and the traders thrown back on the ordinary 'class rates' at a higher figure until the companies could finish the work of revision, on which they were then still engaged. There was, no doubt, an error in

tactics on the part of the railway companies in not explaining their position on this particular point more clearly, and at an earlier date, than they did, instead of leaving traders to assume that the substantial increases with which, in some cases, they were suddenly faced were permanent. Had such earlier and fuller explanations been given, the outcry would probably have been less acute; though, on the other hand, the traders themselves were not warranted in their further general assumption that a 'revision' of railway rates necessarily meant a 'reduction' thereof.

Whatever form, however, the 'howl of execration' against the railway companies might take, it could not be suggested that they had exceeded their statutory powers. There was nothing in any of the Railway Rates and Charges Confirmation Acts of 1891-1892 (which formed the new charters of the railway companies) to indicate that the companies were not to be at liberty to charge their revised maxima. On the contrary, the schedules of those Acts—as well as the Act of 1888, authorizing the revision—expressly stated that the maxima fixed by them were 'the rates and charges which the railway companies should be entitled to charge and make.'

It was the railway companies themselves who provided a solution of the difficulty that had arisen. Accepting, as, of course, they were bound to do, the reductions enforced upon them through the action of Parliament, they announced that otherwise the rates were not necessarily final, and were being revised; but meanwhile the companies were willing to give an assurance that there would be no increase of rates that would interfere with trade or agriculture or diminish traffic, and that, unless under exceptional circumstances, no increase at all would be made exceeding 5 per cent.

above the rates current in 1892. In this way they hoped to cover any prospective loss of revenue, as the result of the revision, with as little disturbance as possible to the trade of the country.

It was still regarded as a grievance, however, that there was no jurisdiction to question the reasonableness of increases of rates and charges within the maxima already authorized by Parliament, and this matter was considered by a Select Committee of the House of Commons appointed in May, 1893. The Committee presented their report in the following December. They recommended that if, when a trader complained that a rate had been raised excessively or unreasonably, the powers of the Board of Trade under the Conciliation Clause of the Act of 1888 failed to bring about an amicable settlement, the Railway Commission should be empowered to decide whether the increase was reasonable or not, such power being retrospective, so as to meet any increases of rates since the revised schedules came into operation—that is to say, since January 1, 1893. The Committee further expressed the opinion that ‘the margin between the old actual rates and the present Parliamentary maxima was not given by Parliament in order that immediate advantage should be taken of it, or that the policy of recoupment should be carried out.’ The attitude thus taken by the Committee presented Parliamentary control over the railway companies in an entirely new phase; for, whereas it had expressly and repeatedly laid down that certain specified rates and charges were those which the companies should be ‘entitled to charge and make,’ the companies were to be called severely to account when they made use of the powers thus conferred upon them by Parliament itself!

The report of the Select Committee of 1893 led to

the passing of the Railway and Canal Act, 1894, under which power is given to the Railway Commission (after a complaint has been made to and considered by the Board of Trade, under the Conciliation Clause of the Act of 1888) to hear and determine complaints with reference to any increase of railway rates or charges since 1892 alleged to be unreasonable, even though such rates should still be within the statutory maxima; while it is further enacted that 'it shall lie on the company to prove that the increase of the rate or charge is reasonable.'

The final outcome of the whole situation is thus summed up in Butterworth's 'Maximum Railway Rates':

So that the legislation of 1888-1892 presents this remarkable result—that Parliament in 1892, after probably the most protracted inquiry every held in connection with proposed legislation, decided that certain amounts were to be the charges which railway companies should for the future be entitled to make, and in 1894 apparently accepted the suggestion that many of the charges, sanctioned after so much deliberation, were unreasonable, and enacted that to entitle a company to demand them it should not (to quote the words of the Act) 'be sufficient to show that the charge was within any limit fixed by an Act of Parliament, or by any Provisional Order confirmed by Act of Parliament.'

I leave the reader to make his own comments on these matters of history, and to draw therefrom such moral as he should think fit. Opinions may vary as to what that moral should be, but one certain fact, as the outcome of all this Parliamentary intervention, is that, under the operation of the existing laws, railway companies now have to be exceedingly careful before they reduce any particular rate—even when they could afford to do so—because of the difficulties they would encounter if circumstances might require them to raise it again (after due notice given) to its original level. In other words, legislation intended to safeguard the interests of

the traders has deprived railway rates to a considerable degree of that element of elasticity from which, had the purely commercial relations of railways and traders (as distinct from main principles) been less hampered, advantages much more practical than those secured under actual conditions might have been gained.

CHAPTER III

RAILWAY FINANCE

LATER on in the present volume I propose to offer some facts showing the very considerable extent to which the public funds of various foreign countries have been involved in the actual construction of railways, in the buying up of railway companies which have drifted into financial difficulties, or in the assistance rendered in various ways to the companies which have survived. I should here like to say that the railway system of Great Britain occupies a position almost unique, in the fact that it has received absolutely no State aid of any sort whatever.

I shall, perhaps, be told that the railways of the United States, owned entirely by private companies, represent another important exception. But, as already shown, these railways in their early days often received substantial aid, in the concession to them, not only of land for the construction of their lines, but also of wide strips of territory alongside which they could dispose of to settlers as these 'came along'—a practical endowment fund thus being handed over to the companies. In addition to this, freedom from all taxation for a specified term of years was often conceded as a further grant in aid. On this side of the Atlantic, if a railway company enlarges its station, solely for the purpose of offering

greater conveniences to the public, and with no expectation of increased traffic resulting therefrom, the local rating authority will immediately raise the assessment. The railway company has thus to pay a penalty, in the form of higher local rates, for the benefit it has conferred on the public.

In the United States such an incident as the following—related to me by a railway man in New York—has happened even in recent years: The residents in a town on the Atlantic seaboard considered that their local railway-station was not sufficiently near to the majority of the houses. It took business men some minutes longer to reach their ‘*deopot*’ in the morning than, as persons accustomed to ‘*hustle*,’ they liked. They talked the matter over with the railway company and the local authority, and eventually it was arranged that a plot of land, free of cost, should be provided on the exact spot where the station was desired, the company to pay for new buildings and removal only. The arrangement was duly carried out, but one can hardly conceive of such an experience as possible here.

In Great Britain the railways have been constructed from first to last as commercial enterprises pure and simple, and not only have they received no financial aid or its equivalent from either the State or local authorities, but no condition or circumstance has been lacking that was needed to render their construction the most costly, in proportion to their mileage, of any railway system in the world. In a small, settled, and densely-populated country such as ours, the cost of land must in any case have been greater than that of land, not only in the backwoods of the United States, but also on the flat plains of Germany or the broad stretches of inland France. In the most favourable of circumstances, therefore, the item in respect to land

must have been heavier here than elsewhere; but the figures were swollen to still bigger proportions by the greed of landowners, who extorted from the railways every sovereign they could possibly get; and they have been swollen still larger by the cost of carrying out extensions and widenings—especially in and around London, where the value of the land and property acquired has been exceptionally great—in order to meet the exigencies of present-day traffic conditions.

There is no need to go into great detail on this point, but a few examples may be offered in the interests of traders and travellers who may be apt to think that English railway companies, and especially those having London termini, charge unreasonably for the accommodation they offer or the services they render.

When the Great Western Railway Company came to Paddington, half a century or so ago, they fixed the site for their station on what was then an expanse of green fields, so that, including subsequent costly expansions, the total amount of capital expended in the construction of station and approaches does not exceed £2,000,000. When the Manchester, Sheffield, and Lincolnshire of former days, now the Great Central, wanted to come to Marylebone, as they did six years ago, they had to clear out a thickly-populated area, buying up a large amount of property and unhousing a considerable number of people, for whom the company were obliged to provide fresh dwellings elsewhere, on terms which, one may safely assume, left little or no chance for any reasonable return on capital expenditure. The cost of the extension to Marylebone had been estimated at £6,000,000. By the time the work was finished the outlay amounted to £13,000,000. The last

three miles into London cost £1,000,000 a mile. Prior to the extension the company paid dividends on ordinary stock, but nothing has been paid thereon since. Eventually the extension should be a remunerative investment for the company, but in the meantime the shareholders have made a big sacrifice, and the public who travel by the extension, or send their goods by it, are getting the real benefit. Whether or not in the circumstances they should grumble at the fares or the rates they may be asked to pay, I leave them to settle with their own consciences!

Then, the cost of enlarging stations already established in London, and of widening lines in and around the Metropolis, in order to meet the exigencies of increased traffic—and especially increased suburban traffic—has added some big items to the accounts of various railway companies. No one could possibly have foreseen when these stations or lines were originally constructed that the traffic would attain to such formidable dimensions, and when the time came for the unavoidable improvements, land had to be bought that was either covered with dwellings or occupied by factories or other business premises, built close up to the existing lines, necessitating a very substantial outlay on the part of the railway companies, independently of the cost of the works themselves. Thus, the enlargement of Liverpool Street Station in 1894 involved the Great Eastern Railway Company in an expenditure of £1,200,000; the London, Brighton, and South Coast Railway Company are spending over £2,000,000 on the rebuilding of their Victoria Station and the provision of more lines leading into or out of it; while the capital expenditure on widenings, etc., on the South-Eastern section of the South-Eastern and

ENLARGEMENTS AND WIDENINGS 33

Chatham Railway in recent years has attained the following substantial proportions :

	£	
Charing Cross line widening ...	677,679	
Greenwich line widening ...	1,132,064	
Corbett's Lane to New Cross loop line	190,763	
St. John's to Orpington widening	651,988	
Chislehurst loops	96,522	
	<hr/>	
Total to December 31, 1904 ...	2,749,016	

Here, as in the case of the Great Central, the public have gained a more immediate benefit, in the form of increased accommodation, than the railway shareholders, considering that since 1899 (when £1 17s. 6d. per cent. for the year was paid) holders of South-Eastern 'deferred ordinary' have had no dividend.

Yet, in spite of such figures as these, there are critics who assert that British railways are extortionate and badly managed, because their rate per ton per mile on a 20 or 30-mile haul into London works out higher than the American rate per ton per mile for, say, a 1,000-mile haul across, it may be, a stretch of almost continuous prairies and deserts!

Nor is it the relative cost of land alone that must be considered. There is the question also of the requirements made by the British authorities in regard to the methods of construction and system of operation—requirements not to be surpassed in both comprehensiveness and costliness in any other quarter of the globe. In his speech at the half-yearly meeting of the Great Eastern Railway Company in January, 1903, the chairman, Lord Claud Hamilton, referred to the

making by the company of a new line in the suburbs of London, between Ilford and Woodford, representing a total length of only about 12 miles. After mentioning that the cost of land for the purposes of this line represented an outlay of £518 per acre, he continued :

In constructing the Woodford and Ilford line a sum of nearly £60,000 has had to be spent in dealing with the public road bridges which had to be constructed in connection with the new line in complying with the requirements of the local authorities, and in various accommodation works for landowners. In America a large proportion of this expenditure would have been absolutely saved, for there trains are allowed to run on the level even through crowded streets. A further large sum of about £50,000 has had to be spent upon the stations, all of which have to comply with the latest demands of the Board of Trade and the standard practice of this country, whereas in America we should probably have escaped with a third of this amount. In order to make an adequate provision for the staff working the line, thirty-six cottages have had to be built, so as to insure the men being ready at hand and available for fog-signalling, which, again, would not be the case in America. The next item is that of signalling proper. The cost of the signalling generally will amount to a sum of between £10,000 and £12,000. This sum, again, represents the latest requirements of the Board of Trade, and as in America the railways are not governed by such exacting authorities, the signalling for this line would have been of a much more simple character, and consequently in this item also a very considerable saving would have been effected. Thus, whilst in the United States the total railway capital a year ago was £2,357,638,598, or about £11,933 per mile, here it was £1,008,107,000, or about £45,661 per mile, this extraordinary difference being due not only to the cost of land, but to the stringent regulations of the Board of Trade in this country as regards the quality of the road, platforms, signals, points, bridges, and fencing, which requirements practically do not exist in the States.

The legal expenses in connection with railway construction are also heavier in Great Britain than in probably any other country. In Holland the giving of a concession for a new line of railway is within the discretion of the responsible Minister. In England there

are lines of railway which have cost between £4,000 and £5,000 a mile in legal and Parliamentary expenses alone before the Bills authorizing them could be secured.

How, under the variety of circumstances here stated, the cost of construction of railways in Great Britain compares with that of railways in the other countries of the world is shown by the following table, which I take from the 'Bulletin of the International Railway Congress' for November, 1904:

CAPITAL OUTLAY ON RAILWAY CONSTRUCTION.

Countries and Railway Systems.	Year.	Miles.	Total.	Per Mile.
EUROPE.				
Great Britain and Ireland	1900	21,850'9	£ 1,176,000,000	£ 53,913
Germany	1902	32,314'4	664,100,000	20,825
Austro-Hungary—				
Austria: The entire system	1902	12,409'6	279,500,000	22,523
Hungary: State railways	1901	4,990'2	94,250,000	19,759
Belgium	1901	2,515'4	79,300,000	31,537
France	1900	26,720'7	676,550,000	25,320
Switzerland	1901	2,442'0	50,500,000	21,429
Russia (without Finland)—				
The entire system ...	1901	33,155'0	519,000,000	15,653
Finland: State railways	1902	1,677'7	11,200,000	6,566
Norway	1903	1,431'7	11,400,000	7,966
Sweden—				
State railways	1902	2,391'7	24,800,000	10,376
Private companies ...	1900	4,536'1	20,700,000	4,557
Italy	1901	9,888'1	224,150,000	22,670
Roumania	1895	1,703'2	25,050,000	14,719
Servia	1900	336'2	4,900,000	14,600
Bulgaria	1897	418'2	4,250,000	10,138
Spain: Northern railway ...	1900	2,271'6	45,000,000	19,802
Netherlands	1897	1,653'5	28,700,000	17,350
Denmark	1893	1,286'3	11,100,000	8,626
Total and average for } Europe	—	163,992'8	3,950,450,000	24,089

CAPITAL OUTLAY ON RAILWAY CONSTRUCTION (*continued*).

Countries and Railway System.	Year.	Miles.	Total.	Per Mile.
OTHER PARTS OF THE GLOBE.				
United States of America...	1902	202,432'0	2,548,200,000	12,588
Canada	1902	18,864'5	230,750,000	12,232
Chili: State railways ...	1898	1,375'1	15,800,000	11,302
British India	1902	25,893'0	237,850,000	9,186
Algiers and Tunis ...	1900	2,228'9	27,650,000	12,394
Colony of—				
New South Wales ...	1902	2,952'2	41,400,000	14,016
South Australia ...	1902	1,736'1	13,550,000	7,799
Victoria	1902	3,264'0	41,450,000	12,691
Queensland	1902	2,800'6	20,500,000	7,329
Western Australia ...	1902	1,355'9	7,550,000	5,575
Tasmania	1901	457'3	3,900,000	8,473
New Zealand	1902	2,226'4	18,550,000	8,325
Argentine Republic ...	1898	9,710'3	104,700,000	10,906
Java	1893	607'1	6,200,000	10,921
Japan	1902	3,961'9	31,850,000	8,041
Cape Colony	1902	2,195'3	24,500,000	11,166
Natal	1902	635'1	9,450,000	14,892
Uruguay	1899	997'3	11,050,000	11,089
Total and average for } other parts of globe }	—	283,693'2	3,394,900,000	11,967

One learns from this table that, inasmuch as cost of construction, among other items of expenditure, can only be covered from the rates, fares, and charges imposed by a railway upon its patrons, such rates, fares, and charges must almost necessarily be higher (apart from other considerations) in Great Britain and Ireland, where the lines have cost close on £54,000 a mile, than in Germany, where they have cost less than £21,000 a mile; France, £25,000 a mile; Belgium, £31,000 a mile; Holland, £17,000 a mile; Denmark, £8,000 a mile; or the United States, where the cost of construction has averaged £12,000 a mile.

Then, apart from the large cost of construction, the working expenses have been swollen and the revenue prejudiced by a variety of causes beyond the control of the railway companies. The increase of local taxation is a matter of such gravity that I must devote to it a separate chapter. Board of Trade requirements of various kinds, whether they have been reasonable or not, have undoubtedly had no slight effect in sending up the item of working expenses. Then there is the vexed question of workmen's trains, as to which a great deal of misapprehension prevails on the part of the British public.

The popular idea is that the workmen's trains movement originated in a 'bargain' made between the Government and the railway companies, and enforced as a legislative enactment through the Cheap Trains Act of 1883, to the effect that the Government would take off the duty hitherto paid on third-class fares of over one penny per mile, the railway companies in return for this concession running workmen's trains. In point of fact, the origin of such trains was an obligation which had been entered into in 1864 by the Great Eastern Railway Company to carry workmen between Walthamstow and Edmonton and London at twopenny return fares, instead of putting up workmen's dwellings to rehouse the people disturbed by the building of Liverpool Street Station. There was no question whatever as to any remission of the Government duty. This represented an entirely different movement, carried on with great energy for many years by the Travelling Tax Abolition Committee.* The position was certainly a

* 'When the Taxes on Knowledge were repealed, Mr. Collet and I attempted to procure the repeal of the Passenger Tax on Railways. For forty years after the imposition of the tax of Lord Halford, 1842, the workman was taxed who went in search of an

most iniquitous one. The companies were practically collectors of the tax, which they levied on passengers and paid over to the Government, as the French companies do to-day; but there was this grievous anomaly: that while exemption was granted in the case of third-class fares not exceeding one penny a mile by trains which stopped at every station, the duty was still imposed on the third-class travellers by express trains, because these did not 'stop at every station.'

Prior to the Act of 1883 many of the companies had been charging more than a penny a mile for third-class passengers, except in the case of 'Parliamentary' trains, for which one penny per mile was compulsory. On the passing of the Act they reduced the ordinary third-class rates to a penny a mile, so that the public secured at once a substantial proportion—estimated at about one-half—of the amount saved by the remission of the duty. As against the remaining proportion, which rested

employer. When a poor sailor, arriving in London after a long voyage, desired to visit his poor mother in Glasgow, the Government added to his fare a tax of 3s. to encourage him in filial affection. In the interests of locomotion and trade, two or three associations had attempted to get this pernicious tax repealed without success. It was remarked in Parliament in 1877 that no committee representing the working class asked for the repeal of this discreditable import which most concerned them. This was the reason of the formation of the Travelling Tax Abolition Committee, of which Mr. Collet became secretary and I the chairman. We were assisted by an influential committee of civic and industrial leaders. After six years' agitation, we were mainly instrumental (that was in Mr. Gladstone's day) in obtaining the repeal of the penny a mile tax on all third-class fares effected by Mr. Childers in 1883, which ever since has put into the pockets of working-class travellers £400,000 a year, besides the improved carriages and improved service the repeal has enabled railway companies to give. We continued the Committee many years longer in the hope of freeing the railways wholly from taxation, which still hampers the directors and is obstructive of commerce.'—G. J. HOLYOAKE: *Bygones Worth Remembering*, vol. i., pp. 42, 43.

with the railway companies, the latter undertook to carry military, navy, and police at reduced fares ; while provision was also made in the Act that in the event of a railway company not running proper and sufficient workmen's trains, it might be required to supply such trains, at such hours, as the Board of Trade might think reasonable. But Mr. J. B. Meers, who gave evidence before the Select Committee on Workmen's Trains in 1903, on behalf of the Inland Revenue Department, and had been 'intimately connected,' as he said, with the passing of the Cheap Trains Act, declared that 'he did not think the word "bargain" entered into the question at all.'

Whether it did or not, it is a complete delusion to suppose that the railway companies made a large gain by the remission of the Government duty, and may therefore justly be called upon to run workmen's trains at fares they declare to be unremunerative. Here are a few figures which illustrate how the matter really stands: In 1882 the proportion of the third-class fares (omitting, that is, the fares by 'Parliamentary' trains) on which the Great Western Railway Company paid Government duty, was 75 per cent. of the whole. Had the fares in the year 1902 remained the same as they were in 1882, then, on the basis of Government duty being levied on 75 per cent. of the total number of third-class passengers, the amount taken in fares by the company in that year would have been £2,652,103, instead of £2,320,000, a difference of £331,513. Out of the amount thus saved by the travelling public and lost to the railway company, the latter would have paid £132,605 to the Government in the form of duty, leaving a net loss to the railway of £198,908. But in this same year (1902) the lower rates enforced under the Cheap Trains Act of 1883 in respect to the carriage of military, naval, and

police forces, made a difference of £29,522 in the receipts of the company (as compared with what they would have charged under the old scale of fares), and represented a corresponding gain to the public. Adding together these two sums of £331,513 and £29,522, we get a total of £361,035. From this, however, £150,239 must be deducted as representing what the company would have had to hand over to the Government as duty on urban and other branches of traffic, so that the net adverse balance against the railway company was £210,796. In other words, if the conditions prior to the remission of the Government duty had remained in force in 1902, and if the traffic had been the same in that year as it was, the revenue of the Great Western Railway Company would have been more by over £200,000.

The same argument applies to other railways, but it still leaves out of account large expenditure to which the companies have been put in making provision for workmen's trains and for the increased suburban traffic resulting, in part, therefrom.* Taking the whole of the circumstances into account, one may fairly conclude that the travelling public have been far larger gainers from the remission of the travelling tax than the railway companies; that such remission affords no just ground for compelling railway companies (to the benefit of employers of labour and of property owners rather than of workmen) to run trains which do not pay, and which disorganize the traffic that does; and that still less does the precedent established by the Great Eastern Railway Company in 1864 justify the enforcement of like obligations in respect to 'twopenny trains' on other com-

* On the Great Eastern Railway over £150,000 has been spent in altering suburban carriages so that they will seat six a side.

panies which may themselves have fully met all legal requirements in regard to rehousing.

The point, however, which I desire especially to enforce here, in regard to this particular matter, is that if workmen are to be regarded as a privileged class, who must be carried to and from their occupation at fares or under conditions which do not pay a railway company, then it is obvious that the difference must be made up, either by other classes of travellers or by the general body of the traders. I do not suggest that the running of workmen's trains will cause railway rates to go up. But the result may very well be to prevent some of them from coming down. When a railway company gets an inadequate return from one department, it is much less likely to make generous concessions in another. A reasonable revenue must, if possible, be secured somehow. If it cannot be got from passengers, the company will look to secure all the more on goods. In any case, it is as well the general trader should see where it is that he stands in the matter.

Whatever view may be taken by the world at large of all the various obligations and requirements imposed on railway companies, it is undeniable that the combined effect thereof must be to increase either the cost of construction or the sum total of the working expenses, each of which can be met only out of the fares, rates, and charges that are imposed on one class of patrons or another. As Sir E. Grey said in a debate in the House of Commons on March 3, 1905, when a Bill for increasing the liability of railway companies in respect to fires to crops and plantations caused by engine sparks came up for second reading: 'They could not have it both ways. If they were to have lower rates, the House must not insist on passing measures which would lay more working expenses on the companies.'

Looking now at the actual financial results of railway operation, I would point out, in the first instance, that the total amount of railway capital raised up to the end of 1903 is given in the Board of Trade Railway Returns for that year as £1,245,000,000. Deducting from this amount £191,000,000 for nominal additions, we get £1,054,000,000 as representing, approximately, the sum that investors have put into the construction and operation of the railways of the United Kingdom.

When we ask what return the said investors have had for their money, we get the following results as regards all the railways in the United Kingdom :

	Ordinary.	Preferential and Guaranteed.	Loans and Debentures.
Amount of stock on which no dividend was paid for the year 1903	£ 55,876,465	£ 22,381,506	£ 760,054
Dividend not exceeding 1 per cent.	26,525,367	100,000	1,254,555
Dividend—			
Exceeding 1 %, but not exceeding 3 %	152,300,017	126,646,955	182,594,100
Exceeding 3 %, but not exceeding 5 %	96,543,318	282,940,356	141,151,704
Exceeding 5 %, but not exceeding 7 %	131,277,891	4,474,014	1,567,544
Exceeding 7 %, but not exceeding 10 %	2,229,641	—	—

Average rate of dividend per cent. per annum paid on ordinary stock for the year 1903, 3·29.

The position in regard to certain individual companies is as shown in the accompanying table (p. 43).

These tables demonstrate very clearly that, considering the large sums of money involved, the general return on British railway investment is by no means excessive.

CAPITAL AND DIVIDENDS

43

Company.	Stock and Share Capital.	Loans and De- benture Stock.	Total Paid-up Capital.	Latest Dividend Per Annum paid on Ordinary Stock.	Stock on which Nothing was paid in 1903.	
					Ordinary.	Preferential and Guaranteed.
	£	£	£	Per Cent.		
London and North-Western ...	73,418,163	29,683,278	103,101,441	6½	—	—
Midland ...	86,392,533	27,627,406	114,019,939	5½	—	—
Great Western ...	68,333,566	21,866,171	90,193,737	7	—	—
Great Northern ...	37,983,385	11,400,198	49,383,583	4	—	—
Great Central ...	29,757,804	13,858,036	43,615,840	—	9,668,600	6,830,000
Great Eastern ...	34,521,463	17,059,765	51,581,228	4½	—	—
North London ...	2,984,400	970,866	3,955,266	5	—	—
Rhymney ...	1,525,602	421,699	1,947,301	8½	—	—
Barry ...	3,634,993	1,038,798	4,673,791	9	—	—
Caledonian ...	35,079,696	10,334,291	45,413,987	4	2,784,692	—
Great North of Scotland ...	3,993,672	1,394,058	5,387,730	3½	397,396	—
North British ...	30,529,148	13,158,351	43,687,499	4½*	—	—
Dublin, Wicklow and Wexford ...	1,770,150	753,227	2,523,377	—	700,150	570,000
North-Eastern ...	51,134,042	17,354,580	68,488,622	5½	—	—
Lancashire and Yorkshire ...	39,414,315	15,178,495	54,592,810	3½	—	—
Cambrian ...	2,375,718	2,364,453	4,740,171	4	949,858	1,685,374
C. K. and Penrith ...	332,479	90,132	422,611	—	—	—
Furness ...	4,893,500	1,730,441	6,623,941	1	—	—
London and South-Western ...	29,306,645	11,553,510	40,860,155	8	—	—
London, Brighton and South Coast ...	20,725,775	6,621,716	27,347,491	7½	—	—
South-Eastern ...	23,031,520	7,862,941	30,894,461	4	3,793,019	—
London, Chatham and Dover ...	19,262,010	8,873,002	28,135,012	—	11,259,282	869,532
Metropolitan ...	6,858,985	3,548,799	10,407,784	3	—	—
Metropolitan District ...	7,781,617	2,048,825	9,830,442	—	3,010,000	1,800,000
Taff Vale ...	4,348,322	1,318,967	5,667,289	3½	—	—
Glasgow and South-Western ...	12,473,564	4,058,469	16,532,033	4	442,250	—
Highland ...	4,653,243	1,920,640	6,573,883	2	—	—
Great Northern (Ireland) ...	5,664,866	2,064,085	7,728,951	6½	—	—
Great S. and Western ...	9,630,095	3,974,834	13,604,929	3½	—	—
Totals	651,811,271	240,124,033	891,935,304	Average, 4'93	33,005,247	11,754,906

* At July 31, 1904.

A remark made to me recently by a Worcestershire market-gardener, to the effect that 'he had always understood English railways earned bigger profits than any other enterprises in the country,' has led me to think it would serve a useful purpose to contrast with such a table as the last corresponding figures with reference to some of the principal trading concerns, and especially with concerns which have extensive dealings with British railway companies, since one might assume that their dividends would, in these circumstances, be seriously prejudiced if it were really true, as some people assume, that British industries are being crippled ('crippled' or 'strangled' is the favourite word) by excessive railway charges.

Here, therefore (p. 45), is the further table in question.

STATISTICS RELATING TO THE CAPITAL OF, AND THE DIVIDENDS PAID BY, SOME OF THE
PRINCIPAL INDUSTRIAL COMPANIES IN THE UNITED KINGDOM HAVING EXTENSIVE
TRAFFIC DEALINGS WITH RAILWAY COMPANIES.

OTHER ENTERPRISES

45

Name of Company.	Stock and Share Capital.	Loans and Debenture Stock.	Total Paid-up Capital.	Dividend per Annum paid on Ordinary Stock.	Stock on which no Dividend paid.
James Nelson and Sons, Limited	£ 500,000	£ 130,000	£ 630,000	Per Cent. 70	—
Brunner, Mond and Co., Limited	2,298,934	—	2,298,934	30	—
Holbrooks, Limited	150,000	99,660	249,660	20	—
Guinness, Son and Co., Limited	4,500,000	1,500,000	6,000,000	16	—
Astley and Tyldesley Collieries, Limited	182,341	—	182,341	and bonus 15	—
Home and Colonial Stores, Limited	1,200,000	—	1,200,000	and bonus 15	—
Camwell, Laird and Co., Limited	1,990,000	500,000	2,490,000	10	—
Guest, Keen and Nettlefolds, Limited	2,685,000	1,850,500	4,535,500	10	—
Kynochs, Limited	870,370	—	870,370	10	—
Walter Scott, Limited, Leeds Steel Works	575,000	300,000	875,000	9	—
Joseph Watson and Sons, Limited	710,000	—	710,000	7½	—
Oldroyd and Sons, Limited	400,000	—	400,000	7½	—
Totals	16,061,645	4,380,160	20,441,805	Average, 16·9	—

CHAPTER IV

TAXATION OF RAILWAYS

THE amount of local taxation a railway has to pay represents an important item among those working expenses which, as I have shown, must necessarily be covered out of the fares, rates, and charges levied on passenger or trader.

In the case of State-owned railways on the Continent of Europe, the contributions under this head from the revenue of the undertakings are comparatively light. The State itself does not want to take out of one pocket merely to pay into another, and it is so much interested in running its lines at a minimum of expenditure, consistent with a reasonable efficiency, that it naturally keeps a check over any local authorities who might otherwise seek to replenish their exchequers unduly at the cost of the railways.

In the United Kingdom conditions are altogether different. Here local taxation falls with especial severity on the railways, partly because of the magnitude of their interests and the rapid growth of local rates all round of late years, and partly because they are considered fair game for plunder by local authorities, many of whom subject them to the most merciless of exactions.

The increase in the item of ' Rates and Taxes ' (representing local taxation only, and not including income-

tax or Government duty) paid by the railways of the United Kingdom has been stupendous, as the following table shows :

RAILWAY EXPENDITURE IN LOCAL RATES.

Year.	England and Wales.	Scotland.	Ireland.	Total.	Increase compared with Previous Year.
	£	£	£	£	£
1891	1,960,764	211,593	73,723	2,246,080	—
1892	2,077,268	210,967	79,866	2,368,101	122,021
1893	2,289,530	213,875	83,842	2,587,247	219,146
1894	2,509,183	219,641	86,448	2,815,272	228,025
1895	2,689,423	232,945	88,362	3,010,730	195,458
1896	2,838,525	222,415	87,949	3,148,889	138,159
1897	2,964,632	248,699	98,300	3,311,631	162,742
1898	3,045,766	272,992	105,581	3,424,339	112,708
1899	3,187,364	283,123	111,150	3,581,637	157,298
1900	3,341,512	292,019	123,003	3,756,534	174,897
1901	3,559,490	298,840	121,160	3,979,490	222,956
1902	3,820,289	285,306	121,249	4,226,844	247,354
1903	4,064,648	300,634	126,812	4,492,094	265,250

In the course, therefore, of thirteen years, the sum-total of local rates paid by the railway companies of the United Kingdom has doubled. It has now attained to the proportions of £4,500,000 a year, and is still advancing at the rate of £250,000 each year. Taking individual companies, I find that the London and North-Western Company paid on account of local rates £277,000 in 1891, £456,000 in 1901, £490,000 in 1902, and £521,000 in 1903; the Great Western Company paid £221,000 in 1891, £444,000 in 1901, £492,000 in 1902, and £524,000 in 1903; and so on with other companies.

There is, of course, the consideration that during the periods dealt with the companies concerned have extended their lines and increased their earning

power. But the growth in local rates has been out of all proportion to the expansion of gross receipts. The following table shows very clearly what the experiences of the London and North-Western Railway Company have been in this respect for twelve years, local rates having increased by 94 per cent., while the gross revenue from traffic advanced by 22½ per cent. only.

GROSS TRAFFIC RECEIPTS AND LOCAL RATES.

Year ending.	Gross Receipts.		Rates and Taxes.	
	Increase or Decrease compared with Year 1891-92.		Increase or Decrease compared with Year 1891-92.	
June, 1893 ...	-	1'06	+	4'58
" 1894 ...	-	3'49	+	14'15
" 1895 ...	-	1'92	+	22'59
" 1896 ...	+	3'12	+	30'0
" 1897 ...	+	6'27	+	32'48
" 1898 ...	+	9'79	+	36'58
" 1899 ...	+	13'97	+	40'51
" 1900 ...	+	17'19	+	47'09
" 1901 ...	+	17'55	+	55'43
" 1902 ...	+	19'38	+	70'49
" 1903 ...	+	22'92	+	81'3
" 1904 ...	+	22'54	+	94'16

Comparing 1903 with 1871, statistics respecting the Midland Railway Company show an increase in gross receipts during that period of 172'56 per cent., as against an increase in rates and taxes of no less than 473'64 per cent. The average poundage of the rates paid by the company was 2s. 9d. in 1871 and 4s. 2d. in 1903. The dividend was 7 per cent. in 1871 and 5½ per cent. in 1903.

Nor do the figures given above tell the whole story, for, beyond the payments made direct to the local authorities, it has been estimated that the expenses in-

curred by railway companies in England and Wales in respect to their rating departments, appeals, and litigation arising therefrom, average not less than £80,000 a year.

How, again, there are many parishes in the country where the bulk of the local rates may be paid by a railway company, even though it has not got as much as a station in the place, is well illustrated by a table showing the position in this respect of the London and North-Western Railway Company :

PROPORTION OF LOCAL RATES PAID BY RAILWAY COMPANY.

	No. of Parishes.	Railway Company's Assessment.	Total Rateable Value of Parish.	Railway Company's Proportion.
		£	£	Per Cent.
A	6	24,029	28,625	83·9
B	12	62,439	83,642	74·7
C	19	69,112	108,046	64·0
D	45	220,872	404,514	54·6
	82	376,452	624,827	60·25

A. In this group the railway company's proportion varies from 81·9 to 86·9 per cent. No station in four of the parishes.

B. Railway company's proportion from 70·4 to 79·6 per cent. No station in eight of the parishes.

C. Railway company's proportion from 60 to 68·3 per cent. No station in ten of the parishes.

D. Railway company's proportion from 50 to 59·9 per cent. No station in thirty-one of the parishes.

Still more striking is the following statement, showing the rateable value of the London and North-Western Railway Company's property in sixteen parishes, and the percentage this bears to the total rateable value of each of the parishes ; also the area of land occupied for railway purposes in each of such parishes compared with the percentage of the total acreage. I omit, however, the actual names of the parishes, lest their im-

mediate neighbours might be encouraged to follow their example :

Parishes.	L. and N.-W. Railway Company's Assessment.	Percentage which Railway Company's Assessment bears to Whole Parish.	Area of Railway Company's Property.	Percentage of Land in Parish occupied by Railway Company.	Remarks.
	£	Per Cent.	Acres.	Per Cent.	
A	1,848	86·1	10	2·2	No station
B	3,765	84·1	58	5·1	—
C	3,276	83·7	16	2·6	No station
D	8,594	82·0	31	2·0	"
E	1,188	81·0	4	2·3	"
F	4,780	79·6	21	2·0	"
G	3,974	77·9	16	1·9	"
H	7,208	77·6	29	1·8	"
I	7,752	76·5	41	2·9	—
J	7,300	74·7	49	2·9	—
K	5,392	72·7	31	2·2	No station
L	1,690	72·6	6	1·4	"
M	7,158	72·5	31	2·2	—
N	3,073	72·3	21	1·6	No station
O	2,164	70·4	7	1·5	"
P	4,499	66·9	16	1·3	"

Similar tables could be given in regard to many other lines of railway. The Great Western Railway can offer such illustrations as that of a country parish where the total acreage is a little over 3,000, of which the company occupies $24\frac{1}{2}$ acres, the assessment of the whole parish being £3 6s. per acre, while that of the railway company is at the rate of £284 per acre. In 166 parishes through which the Midland Railway runs the average assessment, exclusive of railway property, ranges from 9s. 6d. to £8 8s. per acre. That of the Midland Railway Company in the same parishes varies between £23 and £345 per acre.

Many of my readers will be at a loss to understand how it is that a railway company may have to bear so

large a proportion of the local taxation in country parishes in which it has no direct interest, and the reasons for this fact should be clearly understood, the matter being one that concerns every trader who consigns his goods or his minerals by rail, if not, also, every railway passenger as well.

Under the parochial system in vogue in England and Wales in regard to the taxation of railways, a railway company is separately assessed in each parish on the 'net annual value' of the lines within the limits of such parish. Taking the gross receipts derived by the company from the traffic passing over the lines, allowance is first made in respect to (1) the expenses of earning those gross receipts; (2) the occupier's share—that is, 'the amount of profit due on the capital employed'; and (3) the statutory deductions (in respect to repair and renewal of way and works) allowed by the Parochial Assessment Act. The remainder represents the net annual value, on which the assessment of the 'running line' is based—station and buildings, if any, being dealt with separately. In practice the assessment is arrived at by allocating to the particular parish (1) the whole of the tolls, rates, and fares for traffic beginning and ending in the parish; and (2), in the case of through traffic, or traffic partly in the parish and partly in another or others, by allowing a proportion of the whole fare, according to the mileage within the parish, of every separate toll, rate, or fare paid in respect of such traffic. (See 'Rating of Railways,' by Walter Clode, Barrister-at-Law.)

The amount of clerical work thus involved in compiling monthly returns or abstracts over the entire system of a railway company in order to ascertain the earnings in respect to each parish may in itself be enormous. In one instance the preparation of a return

of parish earnings in a certain union cost the railway in clerical work alone £640, while, in addition to this, fourteen clerks worked for three weeks on the signalmen's books extracting the train miles.

The practical effect of this parochial system in the assessment of railways is that when a trader sends a truck of cauliflowers from Penzance to London, or a consignment of machinery from London to the North, the traffic thus created will be included in any fresh assessment made in respect to every parish through which it is conveyed. Each local authority, in fact, however obscure, has a right to levy a toll, in the shape of local rates, on all traffic passing over the railway lines within its area. In various instances, I may add, the area has been deliberately stretched in a certain direction for the purpose of enabling the local authority to tap the through railway traffic for rating purposes, and so provide itself with some more or less costly 'improvement' at the expense of those who have absolutely no interest in the place beyond travelling through it or sending goods through it on the way from one part of the country to another.

One sees, therefore, that, although the heavy local taxation already illustrated nominally falls upon the railways, it must also seriously prejudice the position of traders and travellers, since the various considerations here presented are necessarily borne in mind by the companies in fixing those rates, fares, and charges by means of which the revenue to meet such taxation, among other expenses, is raised. So, in the long-run, the trader suffers equally with the railway shareholder, and we see how the dead-weight of local taxation may affect the commercial and industrial welfare of the entire country.

The foregoing remarks apply to existing conditions,

but there is the possibility of a still more serious outlook for the British trader. Ten years ago a number of the leading railway companies thought to recoup themselves for the increase in working expenses (due to the rise in the price of coal, higher wages, and statutory requirements shortening the hours of labour) by increasing their rates for the carriage of coal and certain other commodities. They were called upon to 'justify' these advances before the Railway and Canal Commission; but, although the fact of an increase in working expenses was admitted, and although the principle involved in the action of the companies was upheld, it was found practically impossible to allocate the higher working expenses (coming under the different heads, as specified above) to particular commodities or classes of traffic, and, in the result, the railway companies were only partially successful, and had to be content with smaller advances than those they had sought to enforce.

To-day the position is altogether different, for, going no further back than 1894, the increase in the item of rates and taxes alone between that year and 1903 was no less than 59·6 per cent. The moral conveyed by this fact is that, if the said item should continue to increase in the same way as it has done since 1894, the railway companies, in any further attempt to recoup themselves for their greater working expenses, should be in a position to 'justify' by 'rates and taxes' alone an advance of their own rates all round, since local rates and taxes have to be paid by them in respect to all classes of traffic. I am, of course, only speaking here of the possibilities of the situation, and, accepting these, there would still remain some very grave questions of policy for decision before those possibilities were acted upon. It is as well, however—especially in the light of what occurred ten years ago—that the traders of the

country should recognise the direction in which affairs may be drifting.

Looking at the special reasons why local taxation has fallen with exceptional severity on railway companies, one finds that a leading cause in rural parishes is the readiness shown by the new local authorities there to carry out a variety of 'improvements' (too often on a scale much more suited to urban than to agricultural districts) because, under the conditions already narrated, some railway company or other can be called upon to pay most of the cost.

Many illustrations of this tendency could be given, but a few must suffice.

A purely agricultural parish in Northamptonshire, with an acreage of 1,671 and a population of a little over 400, recently carried out a drainage scheme which had the effect of raising the local rates from 9d. in the pound, at which they previously stood, to 3s. 1d. in 1903, while for the first half of 1904 they were 2s. 8d., or at the rate of 5s. 4d. in the pound. But the burden falls principally on the Midland Railway Company, for, though they have no station in the place, they are assessed to the tune of £7,478 in respect to the traffic passing over their lines situated within the parish boundaries, and they pay, in point of fact, 81·5 per cent. of the sum total of the rates.

A drainage scheme, which would have cost some thousands of pounds, was proposed for a Berkshire village situated four miles from the lines of the Great Western Railway Company and separated from them by some poor agricultural land assessed at between 12s. 6d. and 15s. the acre. The assessment imposed on the railway company in respect to the traffic carried on their section of line included in the parish stands at £2,500, and represents £150 per acre on the actual

amount of land occupied. Had the scheme been carried out, the railway company would have had to bear the greater part of the cost, for the benefit of a parish miles away and absolutely of no benefit to themselves; but in this instance the company's officials raised so vigorous a protest that the proposal was abandoned.

In another rural parish where, again, a railway company constitute the principal ratepayers, a costly drainage scheme was adopted, protests notwithstanding, and the local rulers then realized—that the railway people had foretold—that the new drainage system would have to be supplemented by a water scheme, in order to flush the sewers. It was proposed to bring the water into the parish from a source some distance away, at an expenditure which would have added considerably to the already substantial demands made on the company in the shape of local rates. As a compromise of the situation, the company arranged to sink an artesian well, and, having obtained the necessary powers, constituted themselves a water company for the parish, thus not only avoiding the threatened further increase in rates, but supplying the people with water under much more economical conditions than they could have got it for themselves.

There is a certain Nottinghamshire parish, with a population of only 930 persons, where a drainage scheme which will involve an expenditure of about £6,000 and increase the local rates by no less than 2s. 10½d. in the pound is to be carried out, notwithstanding the admission of the medical officer of health that no illness had occurred which was directly traceable to the existing system of drainage. Inasmuch, however, as the Midland Railway Company have some lines in the parish, all the traffic that passes through

can be made to contribute towards the cost of the work.

Lighting schemes in insignificant places may be illustrated by one that was projected in a parish that consisted of 100 houses, and had a population which had dwindled from 477 in 1891 to 394 in 1901. The parish council proposed to light their roads by gas at a cost which would have added 2½d. in the pound to the local rates; but 60 per cent. of those rates fall on the London and North-Western Railway Company, some of whose lines happen to pass through the parish. Happily for the company, the persuasive arguments of one of their officials induced the parish council to drop the scheme.

Taking places of a different type from those mentioned above, reference might be made to a group of local authorities within fifteen miles of London who are engaged on drainage schemes which will involve a total outlay of close on £100,000. The schemes themselves may, in these particular instances, be desirable enough in the interests of rising localities; but the rates involved will fall heavily on the Great Western Railway Company, who are assessed in the parishes concerned to the extent of £45,000.

These are fair samples of what is going on more or less throughout the country.

It so happens, too, that there is grave cause for suspecting something more than simply an excess of zeal in regard to the cost of local government in rural parishes. Due allowance must certainly be made for the occasional presence on the new councils of men of little better than the labourer type, occupying tenements rated at from £7 or £8 to £15 a year, filled with big ideas without any restraining sense of proportion, and desirous only of getting substantial advantages for the

parish in general at the cost of some important undertaking which has not even a vote. There are, however, others besides, including the people who build rows of cottages without making proper arrangements for drainage, etc., and then, being, perhaps, themselves on the local body, seek to evade their responsibilities by securing the adoption of drainage, water, and lighting schemes at the cost of the whole parish, and especially of some large company, but for whose rating liabilities these schemes would either not be projected at all, or would be framed on much more economical lines. In the words of a rating agent of long and varied experience in all these matters :

England is being put into good 'fettle,' and the conditions in the rural districts are certainly improving. The chief responsibility of finding the money, however, is falling, not upon the landowners and the landlords whose property is enhanced in value, or upon the local residents who enjoy the increased comforts and advantages, but upon the railway companies on the one hand, and, through them, upon the traders and travellers who patronize their lines.

More alarming still for the railway companies than these drainage, lighting and other rural schemes is the prospect that another formidable item in public expenditure has only just begun—that in regard to secondary education, the rates for which will be incorporated with the poor rate, and charged upon full rateable value. There is one railway company alone which calculates that the last Education Act will send up its item of 'Rates and Taxes' by £60,000 a year, while the increase in the probable grand total for the railways as a whole due to the new Education Act is estimated by one of the most experienced of railway rating agents at from £175,000 to £200,000 a year. Is this amount to be paid by the railway shareholders or by the traders and passengers? And should there not be, in either case, an extension of the system of differential rating,

so that the local rates enforced on a railway company would be more in accordance with the benefits likely to be derived by the railway from the particular expenditure in respect to which the rates are levied?

Then, the assessments are in many cases made by individuals who are paid by results—that is to say, they receive a commission on the amount by which they can raise the previous assessments, while appeals against assessments are decided by a Court of Quarter Sessions, instead of, in the case of railway companies, by the Railway and Canal Commission. When this body was first appointed, it was assumed that the Commissioners would try all railway assessment appeals, but this can be done only with the assent of both parties. One or two such appeals were heard before the Commission, which threshed them out in the most impartial and thoroughgoing manner. Local authorities were, in fact, led to the conclusion that they could get better results—from their own point of view—from Quarter Sessions, and since then there have been no further appeals to the Railway Commission. The question that now arises is whether a railway company should not have the right of appeal to the experts of the Railway Commission in preference to the amateurs (necessarily so as regards railway technicalities) of the Court of Quarter Sessions, and irrespective of any preferences on the part of the local authority.

All the same, even the Courts of Quarter Sessions are recognising the iniquitous way in which local authorities seek to swell their receipts from rates by raising assessments on the great traction companies to abnormal proportions, and, as the following examples show, are willing to do the companies justice when especially flagrant cases come before them:

1. At the last quinquennial revaluation in Lambeth

the lines of the South-Eastern section of the South-Eastern and Chatham Railway within that parish were assessed at a rateable value of £9,150. The managing committee appealed, first to the Assessment Committee and then to Quarter Sessions. There the appeal was allowed, with costs, the assessment being reduced by £6,300 to £2,850, which was precisely the figure the managing committee had represented as the right one.

2. The Midland Railway Company appealed from the assessment of the Midland Hotel, Manchester, with the result that the justices reduced the overseers' assessment of £22,000 gross and £19,000 net to £15,000 gross and £12,500 net.

3. The London United Tramways Company (Limited) appealed against their property within the Brentford Union being assessed at £18,552, and asked that the amount should be reduced to £13,659. After prolonged proceedings—which involved a total expenditure estimated at £10,000—the Court granted the appeal, with costs, and reduced the assessment to £11,245, this being £2,414 less even than the figure the company had been willing to accept!

With the help of the facts and figures here detailed, the trader should understand more clearly the important bearing that local taxation may have on the rates, tolls, and charges out of which alone a railway company can hope to cover, among other things, working expenses which include what I have shown to be the very considerable item of 'rates and taxes.' Certain it is that if the railways had to pay under this head some less extortionate sum than £4,500,000 a year, they would be in a position to make substantial concessions to their patrons, who at present suffer equally with railway shareholders from a condition of things over which the voteless railway companies have absolutely no control.

CHAPTER V

CLASSIFICATION AND LEADING PRINCIPLES

THE existing classification in regard to the general goods traffic on British railways, and according to which the rates and charges are imposed, is of a two-fold character: (1) The 'statutory' classification, and (2) the 'railway' or 'working' classification. The former is the one laid down by those Railway Rates and Charges Orders Confirmation Acts of 1891-1892, which form the present charters of our railway companies. The latter is an amplification of the statutory classification, reducing certain commodities to a lower class, and allowing of greater elasticity in the granting of lower rates, to the advantage of the trader.

'Class rates' comprise eight groups, namely, A, B, C, 1, 2, 3, 4, and 5, the rates in the first-mentioned groups being the lowest, and those in the last-mentioned the highest. Classes A, B, and C relate to articles generally carried in large quantities and in a more or less raw condition, or, alternatively, in the first stages of manufacture. They are usually 'station to station' rates, with a minimum of 4 tons for Classes A and B and of 2 tons for Class C. Typical commodities in

Class A would be coal and ironstone ; in Class B slates, pig-iron, and bricks ; in Class C iron girders, artificial manures, cement, and grain.

Classes 1 to 5 generally include collection and delivery, and the rates are applicable to weights over 3 cwt., without any addition being made to the proportionate charge per ton. Consignments of 3 cwt. and less fall under a 'small's' scale, which works out at something more than the tonnage charge.

Typical articles in Classes 1 to 5 are—Class 1 : ale, sugar, apples. Class 2 : bacon, oranges, wool. Class 3 : packages of heavy drapery or hardware, boots and shoes in cases or boxes. Class 4 : meat, drugs, boots and shoes in hampers, packages of light drapery, manufactured tobacco (not cigars or cigarettes). Class 5 : furniture, musical instruments, amber, cigars or cigarettes, straw hats, feathers, stained glass, cut flowers, photographic apparatus.

The chief considerations which prevailed in arranging the general classification were—(a) value of the commodity ; (b) liability to damage during transit ; (c) weight in proportion to bulk ; (d) nature of packing and cost of handling. Thus, coal is less valuable than iron girders, and is therefore charged on a lower scale ; amber is valuable, though it occupies little space, and can 'stand' a higher rate than bacon ; furniture, whilst being very bulky, is much more liable to damage during transit than heavy drapery ; a 3-cwt. consignment of straw-hats would take up much more space in a railway-truck than 3 cwt. of hardware ; and so on throughout the almost endless list of reasons why particular commodities fall into one of the classes specified, and not into another ; although it may well happen that the trader himself may not always appre-

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ciate the distinctions on which the differences are based, and entertain his grievances accordingly.

The 'class rates' themselves are seldom altered, reductions in regard to particular commodities being made, preferably, by placing the goods in question in a lower class. On the other hand, no commodity can be transferred from a lower to a higher class in the working classification, thus increasing the rate, without fourteen days' notice being given; and if such transfer be objected to by the traders, the railway company may be required to justify it before the Railway Commissioners.

The differences per ton in the various classes, and the effect of removing any particular commodity into a lower one than it has stood in before, are well brought out in the following table, which gives, for various distances, the rates on one of the leading lines of railway for commodities coming within the scope of all eight classes:

ORDINARY CLASS RATES.

Distance (Miles).	A.		B.		C.		1.		2.		3.		4.		5.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
20 ...	2	I	3	0	5	6	10	3	12	3	14	0	16	7	20	I
47 ...	5	II	5	4	8	9	14	6	17	6	20	4	23	7	29	0
95 ...	6	I	8	6	13	10	20	2	24	10	28	6	34	3	42	I
149 ...	7	II	10	II	17	3	24	5	31	I	36	0	43	5	52	6
211 ...	9	II	13	10	21	4	30	8	40	0	46	8	56	5	67	6

The rates in Classes A, B, and C are station to station rates; those in Classes 1, 2, 3, 4, and 5 include collection and delivery. Rates in Class A are applicable only to traffic carried in traders' own waggons.

'Exceptional rates,' lower than the ordinary class rates, are given where certain minerals or goods are carried in large quantities, the general principles on which such rates are fixed being: (a) volume and regu-

larity of traffic between the points concerned; (b) weight per truck or per train which can be maintained by such regular traffic; (c) general earning power of the traffic; (d) liability or non-liability to damage; (e) competition, direct or indirect, by water, by road, or by other means; (f) special requirements of shipping traffic to or from ports; (g) the creation of traffic by enabling new or increased business to be done; (h) a general consideration of what the traffic will bear.

Taking the whole of the goods traffic in the United Kingdom, about 75 per cent. is carried at these exceptional rates, conceded under a variety of circumstances for the encouragement of business, especially in staple trades. As regards Classes A, B, and C, a very large proportion of the traffic is conveyed at exceptional rates, the practice among railway companies having been, generally speaking, to concede less than class rates—(1) where the commodities comprised in the classes in question are going long distances; (2) where they are carried in larger quantities per waggon than the minimum to which the class rates usually apply; or (3) in the case of special large contracts. The bases of these rates were, in fact, generally fixed before the present *maximum* scales of charges were authorized. To have changed them would have caused a serious dislocation of business. In the higher classes of general merchandise, comprised in Classes 1 to 5, exceptional rates are frequently given—(1) where a regular trade can be created by such rates, or (2) where the traffic can be sent in large quantities.

The reductions obtained by the traders from the operation of these exceptional or special rates, as compared with the ordinary class rates, are well brought out by the following examples :

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Distance (Miles).	Description of Traffic.	Exceptional Rate per Ton.		Corresponding Class Rate per Ton.	
		s.	d.	s.	d.
17 ...	Soap	7	11 C. & D.	8	9 C. & D.
107 ...	"	17	6 "	21	9 "
154 ...	"	22	9 "	28	2 "
46 ...	Undressed leather	15	0 "	17	6 "
110 ...	Undressed leather	26	3 "	27	3 "
211 ...	Undressed leather	30	0 "	40	1 "
162 ...	Cotton and linen goods	35	10 "	38	5 "
179 ...	Cotton and linen goods	40	0 "	45	7 "
23 ...	Common win- dow glass	11	9 "	14	0 "
54 ...	Common win- dow glass	15	10 "	21	9 "
207 ...	Common win- dow glass	30	5 "	43	4 "
20 ...	Iron in Class C	3	8 S. to S.	5	3 S. to S.
100 ...	"	10	10 "	14	0 "
200 ...	"	16	8 "	22	9 "
19 ...	Grain	4	9 "	5	7 "
51 ...	"	7	6 "	9	5 "
101 ...	"	11	3 "	14	0 "
20 ...	Common bricks	2	3 "	3	1 "
50 ...	Common bricks	5	0 "	5	7 "
150 ...	Common bricks	10	5 "	11	0 "

C. & D.=collection and delivery. S. to S.=station to station.

Concessions such as those here represented have been one of the main causes of the complaints as to a lack both of consistency and of simplicity in railway rates. It is probable that if the railway companies had adhered rigidly to their statutory classification and to their ordinary class rates, instead of adopting a working classification and conceding so many exceptional rates, the whole system might have appeared

more consistent and much simpler. But I leave the reader to decide for himself, with the help of the figures given above, whether the effect might not have been seriously prejudicial to the best interests of many a British industry.

In addition to the more or less permanent of the exceptional rates, specially low rates are often given by the companies for large volumes of traffic passing between certain points within a fixed period, being cancelled as soon as the period in question has elapsed. But any and every rate made by a British railway company must be inscribed in the rate-book at the station from which it applies, and any trader who pleases has the right both to see the rate-book and to claim that his produce or his merchandise shall be forwarded at the rate in question, provided he fulfils the required conditions.

The rates for transport are supplemented by charges in respect to terminal services, such as loading and unloading, or covering and uncovering, maximum sums in respect thereto having been fixed by the Railway Rates and Charges Orders Confirmation Acts, 1891-1892. The companies are further empowered to charge for warehousing and wharfage, and also demurrage for the detention of trucks by traders beyond a reasonable time, the free period usually allowed being forty-eight hours.

Besides the scales of rates in respect to minerals and merchandise referred to above, there are others which relate to—(a) animals; (b) carriages; (c) exceptional articles; (d) small parcels; and (e) returned empties.

CHAPTER VI

EQUAL MILEAGE RATES

THE fallacy that in equal mileage rates will be found the panacea for all anomalies in railway rates lingers in spite of half a century's experience to the contrary, and in spite of the condemnation of every Royal Commission and Parliamentary Committee which has investigated the subject. So recently as October, 1904, the directors of the Nottingham and Midland District Grain Trade Association, Ltd., addressed to the Minister of Agriculture and the President of the Board of Trade a letter in which they urged 'the necessity and desirability of "a code of legal maximum practical railway rates" being organized, the same to be binding upon all railway companies as if they were one railway, so that the cost of the carriage of corn or of any other kind of goods can be as easily ascertained as the fare for personal conveyance'; the claim being also made that 'every article should be classified, and should be subject to a fixed maximum charge per ton per mile for haulage between any pair of stations.' Here we get the old theory of equal mileage rates served up afresh, and the fact that it can, even now, be so served up, and may even be favoured in other quarters besides, must be my excuse for dealing with a branch of the general subject which otherwise might have appeared sufficiently antiquated to be left alone.

Admitting that classification, with its different rates or different kinds of goods, is unavoidable, the advocates of equal mileage rates have, nevertheless, argued that a particular commodity should always be charged the same rate per mile, irrespective of length of haul or of the different points between which it is carried. Given classification and distance, a trader would then, it was argued, be able to reckon out for himself the amount to be paid for transport, and everything would be simplified.

Theoretically, the proposal seems to have much in its favour. Practically, it would be unworkable, and in its application would be far worse for the traders than any anomalies resulting from the existing system—a system which, complicated though it be, has been moulded on actual economic and geographical conditions, rather than on any ideal of absolute consistency.

To begin with, there are the differences in the cost of construction. Whereas the lines from A to B may have been laid over a perfectly flat surface, presenting no engineering difficulties of any kind whatever, and representing a minimum of outlay on the part of the railway company, the lines from C to D, though of equal distance, may include a heavy gradient, a costly bridge or viaduct, a deep cutting, or a long tunnel, any one of which conditions would add considerably to the cost of making the lines. So a rate that was remunerative between A and B would fail to yield any adequate return on capital outlay on the lines between C and D, while the rate necessary to cover cost in the latter case would be excessive in the former. To equalize the rate would still leave Farmer Jones to pay more than he ought to be charged between A and B, in order that Farmer Smith could get transport at less than cost price between C and D.

Then there are differences in the cost of operation. On a stretch of line having a heavy gradient a single locomotive will be able to haul only a lesser number of waggons, and that, too, at a decreased speed. To move a given number of tons between two points having a gradient such as this will cost more in working expenses than to move an equal weight for an equal distance over a perfectly level line. In regard, therefore, to the rates charged, the same considerations arise here as before.

Another factor is the amount and regularity of the traffic. Granted that the physical conditions between two groups of places, of equal distance, are the same, it may happen that large and constant consignments are carried from A to B, with the possibilities of good return loads from B to A, whereas only small and irregular lots of the same commodities will go from C to D, with no prospect of any back-loading at all. Here, again, the railway company can afford to charge a lower rate in the one case than in the other, although the mileage is equal.

Next, we may take the case of three railway companies all having lines between London and some provincial town, but so laid that the first company's route is 30 miles, the second company's route 35 miles, and the third company's route 40 miles. Under a system of equal mileage rates the company having the shortest mileage would have a monopoly of the traffic, and, even if the traders did not suffer, the other companies would. In circumstances such as these the railway companies agree between themselves that the rates charged by the different routes shall be the same, the basis fixed being the mileage of the shortest route.

If, therefore, it suits the trader to consign by the company whose line to London is 40 miles, in pre-

ference to the company whose line is only 30 miles, he can do so without paying any more. He thus gains an advantage in having three routes open to him on the same terms, and all the companies concerned get an equal chance (subject to other conditions which may apply) of a share in the available traffic. Competition is checked as regards the rates charged, but there may still be a very keen competition indeed between the three companies in regard to efficiency of service—once more to the benefit of the trader.

Equal mileage rates would entirely overthrow this very happy arrangement. Still more would they be a death-blow to the long-distance trader. A mileage rate that might be necessary, and in no way burdensome, in the case of a short haul would run into prohibitive proportions in the case of a long haul, just as a rate per mile that might bring in a satisfactory return on a haul of 100 miles would be entirely unremunerative on one of 5 or 10 miles. Under a system of equal mileage rates beef could no longer be profitably sent to London by rail from Aberdeenshire, fish from Wick or Galway, vegetables from Penzance or Jersey, coals from South Wales, or milk from any place more than a score or so of miles away. The producers nearest to London would have all the advantage, and those at a distance would be shut out. Like conditions would apply to other large centres of population. The farmer or the manufacturer who wanted to get a living would have to locate himself as near as possible to a big town, and the desertion of the country for the towns would proceed at a greater rate than ever. Some traders, having a monopoly, would make fortunes; others would be ruined. Some railways would get more goods than they could carry; others would be left with a large collection of empty waggons. As for the consumers in

the towns, they might fairly expect to have to pay more for almost everything, since the range of possible supplies would be so greatly curtailed.

Various branches of manufacture, especially in the iron, steel, and engineering industries, would have to stop altogether. Collecting, as they do, their raw materials from a variety of sources, they could not fix upon any one locality which would bring them close to those raw materials in every instance; and if they had to pay equal mileage rates for everything they wanted, the cost of production would be so excessive that the works could not possibly be continued. Even if this were not the case, the railway companies, under an equal mileage rates régime, would be no longer able to give manufacturers special rates to the ports, so that competition with foreign producers would become impracticable, and not only the traders and the railway companies, but the shipping interests, also, would suffer.

The power now possessed by the railway companies to lower their rates so as to compete with sea or inland navigation traffic would be checked. In islands so circumscribed in their dimensions as our own, sea competition is an especially active force. The Bradford manufacturer who is sending goods to London for shipment to the East can put them on a boat which will take them along the Aire and Calder Canal to Goole or Hull, whence they can be carried by steamer direct to London. From Liverpool and Manchester there are regular services by sea to London, and, assuming that time permits, goods may just as well be sent by this route as by rail. Similar conditions apply to innumerable other instances, and certain it is that if the railways were bound down by a rigid system of equal mileage rates, which prevented them from conceding reductions to meet the sea competition, they

would lose a large proportion even of such part of the export traffic as they have succeeded in retaining.

To sum up the general position in regard to the theory of equal mileage rates, I cannot do better than quote the following passages from the report of the Select Committee of 1872, reproduced in the report of the further Select Committee on Railways (Rates and Fares) of 1882 :

In short, to impose equal mileage on the companies would be to deprive the public of the benefit of much of the competition which now exists, or has existed, to raise the charges on the public in many cases where the companies now find it to their interest to lower them, and to perpetuate monopolies in carriage, trade, and manufacture in favour of those rates and places which are nearest or least expensive, where the varying charges of the companies now create competition ; and it will be found that the supporters of equal mileage, when pressed, often really mean, not that the rates they pay themselves are too high, but that the rates that others pay are too low.

Pressed by these difficulties, the proposers of equal mileage have admitted that there must be numerous exceptions—*e.g.*, where there is sea competition (*i.e.*, at about three-fifths of the railway stations of the United Kingdom), where low rates for long distances will bring a profit, or where the article carried at low rates is a necessary, such as coal. It is scarcely necessary to observe that such exceptions as these, whilst inadequate to meet all the various cases, destroy the value of 'equal mileage' as a principle, or the possibility of applying it as a general rule.

The Select Committee, in fact, condemned the proposal as 'impracticable,' and this view has been fully confirmed by Parliament, which has declined to endorse the equal mileage rates theory, and has not only left the companies free to grant special rates, where these are considered necessary or desirable (provided that no 'undue preference' is shown), but has itself laid down the principle that the rates per mile shall be reduced in proportion to the distance travelled. Even on the Continent, where much more persistent efforts have been made to maintain equal mileage rates, this same principle of reduction in

proportion to length of haul has been widely followed as the result of the example set by Belgium; whilst even there the paying distance may count either as more than the geographical distance, when the gradients are exceptionally heavy or long bridges are crossed; or as less than the geographical distance, because of the estimate being based on the shortest actual, or even possible, route.

Parliament has gone still further in the way of disposing of the equal mileage rates theory by sanctioning the system of 'grouping' various ports or places in one locality, so that the same rates can apply to or from all of them, irrespective of any difference in distance. This was authorized by the Railways and Canal Act, 1888, which, among other things, laid down that :

Notwithstanding any provision in any general or special Act, it shall be lawful for any railway company, for the purposes of fixing the rates to be charged for the carriage of merchandise to and from any place on their railway, to group together any number of places in the same district, situated at various distances from any point of destination or departure of merchandise, and to charge a uniform rate or uniform rates of carriage for merchandise to and from all places comprised in the group from and to any point of destination or departure.

Provided that the distance shall not be unreasonable, and that the group rates charged, and the places grouped together, shall not be such as to create an undue preference.

Whatever, therefore, any individual association of traders may be disposed to suggest, there is absolutely no prospect of the principle of equal mileage rates being enforced in this country in the interests of theoretical consistency or facility of calculation.

CHAPTER VII

PREFERENTIAL AND DIFFERENTIAL RATES

MANY of the complaints brought against railways in regard to alleged preferential rates for foreign produce are based on the erroneous theory that a through rate is necessarily made up of two local rates, and that the charge for the land journey can be ascertained by simply deducting the sea freight from the sum total. Assume, for instance, that an English railway company is bringing large quantities of produce from the Continent to London at a through rate of 15s. a ton. It will be argued that, because the sea freight from the Continental port (A) to the English port (B) is 10s., therefore the railway is carrying the foreign produce from B to London for 5s. per ton; and if this should be less than the ordinary local rate, it will be alleged that an undue preference is being given to the foreigner.

The reply is that the 15s. represents a through rate, and cannot be split up into sections in this way. It is in the essence of a through rate that it represents a single collection, a single delivery, and so on. Thus

A B C

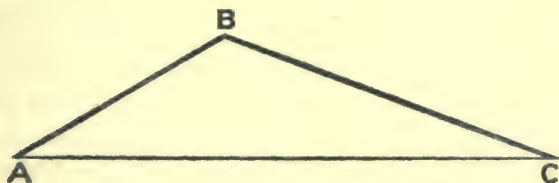
in the conveyance of foreign merchandise from C to A terminal charges will be made in respect to services

rendered at each of those two points. But the proportion allowed for the land journey from B to A may not correspond, in the case of through freight, with the local rate from B to A, because the local rate would include full terminal services at B, the point of despatch, as well as at A, the point of delivery, whereas in the case of the through freight the services rendered at B would not include cartage, at least. To get an exact equivalent the foreign produce would have to be first sent from C to a consignee at B, and there re-consigned from B to A. Then there would be two local rates, with four sets of terminal charges, and, if the quantities were equal, the transport of the foreign produce from B to A would exactly correspond with that of the home produce. But, under the actual conditions of the traffic, it is obvious that one through rate is not necessarily the equivalent of two local rates.

Then, again, under the operation of the rule that the rate per ton decreases according to the distance carried, freight which travels 100 miles will be charged less in proportion per mile than that which travels 50 or 25 miles. Assume that in the above diagram the distance from C to A is 100 miles, made up as follows: from C to B, 70 miles; from B to A, 30 miles. On the basis of an actual tariff, the rates in respect to these several distances might work out as follows: for 100 miles, 31s.; 70 miles, 28s.; 30 miles, 16s. But in attempting to 'analyze' the charge of 31s. for the full 100 miles, one could not argue that, because the railway company charged 28s. for a haul of 70 miles, therefore its charge for the remaining 30 miles of the 100 miles haul was only 3s., and consequently no local trader consigning between those two points should be asked to pay more.

Another type of grievances may be illustrated by the

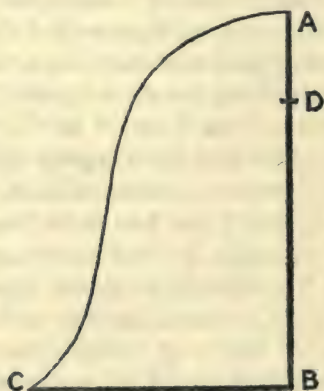
following diagram, which indicates portions of the lines of two competing railway companies in a certain South American State, where the difficulties in question arose.



In order to gain a share in the traffic between A and C, the line represented by the letters A B C charged the same rates between these points as were charged by the line having the direct route, although the former naturally had to carry the freight a further distance than the latter. Between B and C, however, there was no competition, and the A B C company charged from B to C the same rates as it did from A to C, *viâ* B. The traders at B thereupon represented that the traders at A were getting preferential rates, and they argued that, assuming the rates between A and C, *viâ* B, to be represented by 10, those from B to C should not be higher than six. To this the company replied that the rate from B to C was reasonable in itself, and that the one from A to C, *viâ* B, had had to be fixed at the same figure as was charged by the company having the shorter route. The Government was appealed to, and upheld the traders, whereupon the railway company replied, in effect : ‘ We cannot reduce the rates between B and C, because that would be unprofitable business, but we will abolish our through rate from A, the amount of traffic given to us between A and B for conveyance over our own lines being comparatively small.’ This was done, and the alleged preferential rates were

abolished. What followed was that, while the traders at B did not gain the slightest advantage, the company lost a certain amount of traffic, and the traders at A found themselves at the mercy of the company represented by A C, being deprived of all the advantages they had previously gained from the healthy competition of the alternative route in respect, not alone to rates and charges, but also to terminal accommodation and facilities at C. So there was a fresh appeal made to the Government, this time from the traders at A, and the moral they sought to impress on their law-makers was that it would have been better if, in the matter of railway rates at least, they had left the railways and the traders alone to settle their business affairs on business principles.

A further class of anomalies resulting from competition between different companies may be illustrated thus :



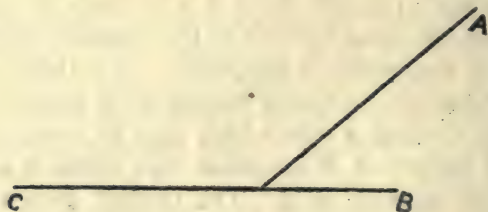
Here the heavy lines, A B C, represent a railway from A, an important shipping port, through B, a small

shipping port, to C, a large inland town ; and the light line, A C, represents a competing railway to the same town. The rates charged by the A B C railway for the carriage of freight from A to C may be put at 7, this being the same amount as that charged by the A C company, with which it competes. At D there is a way-side station, and for taking merchandise thence to C the company charges a sum which may be represented by 8. The traders at D complain that there is a preferential rate granted to A. The railway company may reply, ' We cannot carry from D to C at lower rates, but, to avoid any anomaly, we will raise our charges from A to C to 10.' This might be consistent, but it would not benefit D in the slightest, while it might, on the other hand, drive all the trade of the A B C company from the port of A to the A C route. If the latter line also raised its charges to 10, the traders at A might say that it no longer paid them to send at all from that port to C. They would then, probably, either abandon this branch of their business, or remove it to the smaller port, B, the rate from which to C may be put at 5. So long as the difference between the two ports is represented only by 2, it may be to the interests of the traders to receive consignments for C at A instead of at B, because there may be more chance at A than at B of obtaining return cargoes, while A may offer better facilities generally. But these considerations disappear when the difference is no longer 2, but 5, and it is conceivable that a rearrangement of the rates on a mileage basis might lead to serious consequences in the way of loss of trade at the port of A.

In the next place, we get examples where, although only one railway company may be concerned, there is rivalry between certain ports. Assume that in the diagram given below A and B are ports competing with

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one another for traffic carried on the same line of railway to the large inland town, C :



The traders at A will say to the railway company, 'It is true that in carrying our merchandise to C you convey it a longer distance than you do that from B, but if we have to pay much more for carriage than the traders at B, we shall be unable to compete with them at C, and the business will go to the port of B, to the detriment of A.' The railway company thereupon reduce the rates from A to C, so that, though, perhaps, not identically the same, they approximate more nearly to those from B to C, and are substantially less in proportion than the difference in distance. This allows of the competition between the two ports for the business at the inland town to be maintained, and the railway benefits as well as port A, though it may well happen that port B will discover an anomaly, and complain on the ground that it has been deprived of its geographical advantage.

But, putting diagrams aside, let us consider some concrete examples of how particular ports may gain special concessions in respect to railway rates.

Manchester, as everyone knows, is one of the most important of provincial centres for the sale of foreign produce. Apart from direct supplies, consignments of

produce from America are received there, not only via Liverpool, but also via Hull, to which port there are regular lines of steamers from the United States. On the long sea voyage from America to England it does not make so very much difference in the cost whether the consignments are sent by way of Liverpool or Hull, and there may be advantages in favour of the latter port, on account of back loading or for other reasons. But if the charge for transporting the American produce from Hull to Manchester were too high, it would militate against the other advantages gained in consigning by that route, and the traffic now coming to the East Coast would be diverted to the West.

Then large quantities of produce will be received alike at Hull and at Grimsby from the Continent of Europe, and a substantial proportion of this will be conveyed to Manchester, to compete there with the consignments from the United States and Canada. Here, again, if the railway rates for the Danish and other produce from Hull and Grimsby were too high, the traffic between those ports and Manchester would be prejudiced, and the transatlantic producers consigning via Liverpool would have a better chance of controlling the Manchester market. So the rates for Continental produce to Manchester are, in turn, governed by the rates for American produce received by either an East or a West Coast port.

But other consignments of Continental produce will be sent to the Manchester market via Newcastle-on-Tyne, which (by the shortest 'working' route) is 138 miles from that city, whereas Hull is only 91. Both ports are on the North-Eastern Railway, and, if a strictly mileage rate were charged by that company, it would obviously cost more to send the produce to Manchester from Newcastle than from Hull. In that case

Newcastle would be placed at a disadvantage, and some of its foreign trade would be diverted to the other port. To avoid this result, the North-Eastern Railway Company, which is naturally interested in the welfare of both places, charges nearly the same rate for carrying produce from Newcastle to Manchester as it does from Hull to Manchester, irrespective of the difference in mileage.*

In the same way foreign eggs from Hamburg could reach Sheffield *viâ* London, Hull, Grimsby, Hartlepool, or Newcastle, and as the traffic will naturally follow the cheapest route, the rail charges from all these different ports are controlled by those of the port that is nearest or that asks the lowest rate. Taking, again, the case of a large industrial district, such as Birmingham, in the very centre of England, one can see that the steamers from America will have a fairly equal chance of catering for the business there, whether they arrive at Liverpool, Bristol, London, or Hull, and for many years past the railway companies having lines between those various ports and the city of Birmingham have competed keenly for the traffic, each offering what inducement it can with a view to securing the patronage of its own particular route.

One direct outcome of the conditions here narrated has been the 'grouping' of ports in particular districts, so that (1) the railway rates from each port within the group to any given point shall be identical; and (2) the rates shall also be either identical as regards the different groups, or so far approximate as only to vary

* The competition of the Manchester Ship Canal, along which steamers conveying Continental produce go direct to Manchester from Continental ports, is another reason why the railway rates from Newcastle to Manchester should be kept low, in the interests both of that port and of the railways themselves. Other north-east ports are similarly affected.

according as some special condition or circumstance may warrant. If one bears this principle in mind, much that otherwise appears to be simply chaos in respect to railway rates when they are regarded from the equal mileage standpoint will become more intelligible. The same principle applies also in respect to goods consigned from some inland town to a port for despatch abroad.

It will suffice, perhaps, if I give two examples of the application of this particular principle, one dealing with imports and the other with exports.

Mining timber from Norway or Sweden can reach the collieries at Bestwood, Notts, by any of the East Coast ports. The nearest is Boston, which is 55 miles distant, and if the railway charges for such timber were on the mileage basis, Boston would get the traffic in preference to Newcastle-on-Tyne, which is over 160 miles from Bestwood. In effect the freights charged from the different ports, or groups of ports, work out thus :

From	Mileage or Shortest Mileage.	Rate.
	Miles.	s. d.
Boston 	55	6 0
Lynn 	80	7 3
Humber ports (Hull, etc.) ...	87	7 3
Tees ports (Hartlepool, etc.) ...	139	8 3
Tyne and Wear (Newcastle, etc.)	164	9 0

There is still, as will be seen, a difference of 3s. between Boston (the port which fixes the rate) and Newcastle-on-Tyne; but this amount of difference is

not necessarily prejudicial to the latter place. If Boston is nearer to Bestwood by rail, Newcastle is nearer to Norway by sea, and there would thus be a slight saving on the sea voyage by going to Newcastle; but still more to the purpose is the fact that the port of Newcastle can be entered more easily, and therefore more economically, than the port of Boston, the latter having a channel which offers certain drawbacks in regard to navigation. Newcastle, again, is a more convenient port from which to ship coal to the Continent in the vessels that bring the timber. Altogether, the advantages in favour of Newcastle are regarded as worth the extra 3s.; but if the difference were much greater the traffic might be diverted to Boston. As it is, the ports have a fairly equal chance, and the railway companies do justice to the different, if not directly conflicting, interests concerned.

As an illustration of the same system when applied to exports, we may take the case of woollen goods from Bradford, in respect to which the rates charged to various ports work out as under :

To			Mileage or Shortest Mileage.	Rate.	
			Miles.	s.	d.
Hull group of ports	...	...	60	15	0
Hartlepool group ...	...	...	79	15	0
Newcastle group ...	...	...	104	15	0

Here, it will be seen, the rate from Bradford to Newcastle is the same as that to Hull, though there is a difference of 44 miles in the distance. Again, therefore, one finds that the interests of the various ports are counterbalanced; that the railway companies

have a better chance of dividing the traffic; and also that the Bradford manufacturer has a choice of routes, unhampered by serious divergencies in the item of railway rates.

Hitherto I have spoken of differential rates in respect to imports or exports arising from the competition between the ports themselves. Another type to be considered are the special rates on shipping traffic, under which a lower rate is granted on freight for export than for the same commodity when intended for local consumption.

A good example of the principle here involved is offered by the case of *Spillers and Bakers, Ltd., v. The Taff Vale Railway Company*, which was decided by the Railway and Canal Commission in December, 1903.

Messrs. Spillers and Bakers are large millers, having works at Cardiff Docks and elsewhere, and they complained that they were paying a higher rate for coal delivered to them at Cardiff Docks than was charged in respect to coal brought to those docks for shipment abroad, the average difference on the consignments working out at nearly 6d. per ton. This, they alleged, constituted 'undue preference.'

The Taff Vale Railway Company, in reply, denied, first of all, that any 'preference' existed, because the coal for shipment was all going abroad to be sold in foreign markets, so that it did not compete with the coal sold to Messrs. Spillers and Bakers, who were, consequently, not prejudiced by the difference in the rates. An attempt was made to show that some of the coal that was shipped found its way to the Thames, and was used by London millers in competition with Messrs. Spillers; but the evidence on this point failed to make much impression on the Court. It was further contended by the respondents that if 'preference' were

found to exist within the meaning of Section 27 of the Railway and Canal Traffic Act of 1888, they were, nevertheless, justified by the subsection, which provides that, on deciding whether a lower charge or difference does not amount to undue preference, the Court may 'take into consideration whether such lower charge or difference in treatment is necessary for the purpose of securing, in the interests of the public, the traffic in respect to which it is made, and whether the inequality cannot be removed without unduly reducing the rates charged to the complainant.' On this it was claimed that the system of charging lower rates for coal for shipment was distinctly necessary to enable the Taff Vale Company to get the traffic, which otherwise would go to Barry or Newport, the Barry Company having entered into an agreement with the freighters, as a condition of making their line, that they would not charge more than $\frac{1}{2}$ d. per ton per mile on coal traffic to their dock.

The facts of the case showed that the Taff Vale Railway Company take to Cardiff about 1,400,000 tons of coal per annum for local consumption (40 per cent. of this amount going to the town of Cardiff, and the remainder to manufacturers and others) and 9,000,000 tons for shipment. This latter trade had been worked up mainly as the result of the low shipment rates, and without it Cardiff would never have grown as it has done. To aid in the further development of the business the railway company had recently spent £160,000 in providing increased facilities for shipment. That higher railway rates could be charged on the coal for export was represented as an absolute impossibility if the business were to be retained, and this view the Court adopted.

There remained the consideration whether the rate

charged to Messrs. Spillers and Bakers should be reduced. The firm did not allege that the rate itself was excessive if it stood alone, and, as Mr. Justice Wright pointed out, 'there was an entire absence of evidence to show that the works' rate was not a reasonable one, or anything but a very low rate.' The grievance was that the local firm paid 1s. 6d. where the shippers paid 1s. But to lower the domestic rate to the same level as the export rate would, the railway company contended, be disastrous to them. It would mean a difference of about £23,000 a year, while sooner or later they would have to reduce other rates as well. To Messrs. Spillers and Bakers (a correspondent in a local paper subsequently wrote) the difference would have represented one-eighth of a penny on each sack of flour, valued at 25s., or, in other words, 'a postage-stamp on every £10 worth of goods.'

The Court decided that, on the one hand, the low shipping rate was justified by necessity, and could not be raised consistently with the public interest; and, on the other, that the local rate was as low as it could reasonably be—so low, in fact, that 'it would not be fair to the railway company to charge the applicant less.'

The action of the Taff Vale Railway Company was thus upheld, though in point of fact the main principle involved—that a commodity intended for export can be carried at a lower rate than when it is intended for local consumption, and that in the latter case it cannot claim the same terms irrespective of surrounding circumstances, and when the local rate itself is reasonable—has been recognised from the earliest days of British railways. As 'A Business Man' pointed out in the *Western Mail* of February 20, 1904, 'The first railway sanctioned in this kingdom—the Stockton and Dar-

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lington, which got its Act of Incorporation as far back as 1821—was compelled by Parliament to charge $\frac{1}{2}$ d. per ton per mile on coal intended for shipment, while it was allowed to charge 4d. per ton per mile on coal carried for home use.' So recently also as 1892 Parliament required the North-Eastern Railway Company to fix the rates for coal for shipment at a lower scale than those on coal intended for home consumption. The whole principle, therefore, of conceding rates which, though certainly 'differential,' are not unduly 'preferential,' and confer advantages on one set of traders while not prejudicing others who are already receiving fair treatment, is one clearly established by the law of the land.

I have still to speak, in this connection, of differential rates in which questions of import or export are in no way concerned, the point at issue being the concession of special advantages in the interests of particular inland districts whose industries or enterprises are likely to benefit thereby.

A trader established in a certain locality will, for example, go to a railway company and say, 'There is a chance of my doing a good business with the town of — if only I could get my stuff taken there at a lower rate; but I find that the class rates I am now paying would allow no margin for profit.' Thereupon the railway company looks into the matter, and sees what it can do. If it be found practicable to reduce the rate between the two places, this may be done. Should the rate then be lower than that between two other equidistant places the company creates an 'anomaly,' and there may be other traders in those places who will complain in turn.

In one case of this kind a paper-maker informed a railway freight agent that he would be compelled to give

up business, as he could not possibly compete with the paper-makers of a certain other town for the custom of London purchasers, these other makers having the advantage of water-power, while he was obliged to import coal and drive his machinery by steam. An inquiry was made, the rates were reduced as regarded the town of the handicapped paper-maker, and a substantial boon was conferred on a local industry; but this was done by the creation of what was, at least, a differential rate.

In another instance a bacon-curer in a hog-breeding centre in the West of England found there would be a chance of his opening up a good trade with London if only he could get his bacon carried there at a lower rate, and one that would approximate more nearly to the rates paid by other bacon-curers from various points nearer to the Metropolis. Here, again, the railway made such a reduction in the rate as enabled the long-distance trader to compete with the short-distance trader; for though the former would still have to pay more than the latter, the difference was in no way equal to the difference in mileage, while the one might have some advantage over the other in buying his pigs cheaper from the farmers, in paying less for labour, or in other ways.

Nor in a case such as this would the railway company stand to lose anything by making the desired concession. In giving the distant trader a helping hand it might enable him so to develop his business that before long he would be sending consignments in bulk instead of in small quantities. But that would not be all; for, with the encouragement offered by the decreased rates, other bacon-curers might start operations in the same place, an important local industry might be established, and the supply of the varied wants of

the people engaged therein would mean additional freight for the railway, apart altogether from the amount of bacon carried.

One sees, therefore, the real community of interest that exists between the railways and the traders. Indeed, if only a big bacon-curing industry, for example, were set up in some provincial centre suitable thereto, a railway company which received for transport English bacon equal in bulk to the foreign could afford to quote even lower rates for the former than for the latter, because it would have the opportunity of getting the subsidiary traffic that would follow from the improved industrial position of the locality in question. In carrying foreign produce an English railway company has no direct interest in the place the consignments come from; but in carrying English produce it has a double advantage—the direct benefit from the particular description of freight in question, and the prospective benefit that will follow from the carrying of other kinds of freight, in each direction, as the district becomes wealthier and more populous. Other things being equal, a railway company is really much more interested in the development of home than it is in the expansion of foreign produce.

Looked at from the various points of view here presented, those divergencies in railway rates which, to the trader previously unacquainted with the real factors of the situation, seemed to be entirely devoid of rhyme or reason, are found to be not entirely without method in their apparent madness. In fixing the rates in which anomalies are discovered, the railways are guided by the conditions of the actual traffic rather than by the principle of the multiplication table or the refinements of a logical consistency. But every unprejudiced person must see from the illustrations here given that if the

railway companies were to seek to get rid of the said anomalies by charging strictly mileage rates in every instance it would often mean bad business, not only for them, but also for many a trader who now benefits from advantages that would otherwise have to be withheld.

CHAPTER VIII

GENERAL BRITISH CONDITIONS

WHEN we come to look at the ordinary inland traffic of the British railway companies, as compared with the handling of imports in bulk, what we find is that the traffic in question is becoming more and more a matter of carrying small consignments, if not of small parcels. I may be told that there are important exceptions in the cauliflower trains from Cornwall, fruit trains from Evesham and the Fens, fish trains from Grimsby, coal trains from the Midlands, milk trains from the West, and so on ; but even in these instances the sum total of the traffic represented by a complete train will, generally speaking, be made up of a multiplicity of separate consignments from and to individual traders. Even these apparent exceptions, therefore, do not detract from what I have set out above as representing the now normal conditions of railway operation in Great Britain in regard to purely domestic traffic.

The tendency in question is due mainly to the transformation which has been gradually coming over the general conditions of English trade. The days when the average shopkeeper kept big stocks on hand have practically disappeared. Instead of sinking a more or less substantial amount of capital in large supplies of particular commodities, he obtains smaller quantities of them to meet immediate requirements, and makes

use of the money in other directions—it may be in purchasing supplies of goods he has not previously dealt in, and developing his ‘shop’ into a ‘stores.’ When any particular stock is running low he can post an order, send a telegram, or speak over the telephone to the wholesale house, and he will generally expect to receive the desired consignments, by train or otherwise, on the same or the following day. It is, primarily, to the facilities afforded by the parcel post and the railway companies for the quick delivery of parcels, supplemented by the abundant use made of telephone and telegraph, that this revolution is due; while there has also been a growing disposition on the part of manufacturers to deal direct with small shopkeepers, and so save the profit of the middleman or wholesale dealer, and even to deal direct with the consumer, thus saving the profit even of the tradesman.

The manager of one exceptionally large wholesale house with whom I discussed this subject said to me:

The main characteristic of our business to-day is the multiplicity of small orders, instead of a reasonable number of large ones. We have two and a half times as many individual items on our books, for the same amount of business, as we had fifteen years ago. Our day-books have swollen in size and number far in excess of the total increase in the turnover. The big orders of former times are a diminishing quantity. In their stead we have an immense number of day-to-day orders, repeat orders, orders by post, by telephone, or given through our travellers, but, in the majority of cases, representing small quantities sent for at frequent intervals.

The ‘bunch’ trade is more especially a great feature of the business. Bunches of patterns are supplied to tailors or dress-makers, who keep little or no stock at all, but order from the patterns selected by their customers the exact quantities they require. It is a matter only of a few hours; the tailor or dress-maker is able to work on less capital, and many even of the largest houses are quite willing to cut and send out a single dress length. They go still further, for they advertise extensively, deal direct with the public, take business out of the hand of the local shopkeepers, and work up a big ‘letter trade’ on their own account—that is to say, orders sent in through the post by people who have seen the advertisements.

All these developments are mainly due, on the one hand, to the increased rapidity of communication, and, on the other, to the increased facilities for despatch by parcel-post or train. Sixpenny telegrams made a great difference in regard to communications, but the telephone has done more. The number of orders we get by telephone in the course of the year is really prodigious. In this one building we have no fewer than seventy telephones, with a 'telephone exchange' of our own. The consignment of the parcels is by parcel-post, passenger train, or goods train, according to size. On an ordinary busy day we send out about 600 bales or boxes and 1,500 small parcels, of an average weight of from 16 to 20 pounds.

The net result to ourselves of this revolution in trading conditions is a large increase in labour and expenses, without any corresponding increase in receipts. The greater number of parcels is out of all proportion to the greater value of the business done. Not only is competition keener, but more work has to be done for the money, and the work itself is costing more money to do, owing to the increasing desire on the part of the worker to be better paid.

The experiences here narrated are, in the main, identical—and necessarily so—with the experiences of the average railway company in the matter of ordinary goods traffic. On the railway, as in the warehouse, there has been 'a large increase in labour and expenses without any corresponding increase in the receipts,' the greater number of parcels being 'out of all proportion to the greater value of the business done.' The sum total of the traffic may have expanded, but so, to an even greater degree, has the amount of clerical work, handling, etc., in dealing with an infinitude of retail packages in place of a smaller number of wholesale consignments.

Another factor tending in the same direction, and especially in London, has been the increasing patronage by the public of large 'stores,' the local tradesman being ignored altogether, and household requirements provided for by means of orders sent to the said 'stores' for parcels or consignments as needed. Even the well-to-do householder, who at one time would 'lay in' a stock of wine in his cellar, will now obtain a case

or two from the Army and Navy, Civil Service Supply, or other stores, to meet immediate requirements.

On the Continent, no doubt, a large proportion of this parcels traffic, as carried by the railways here, would go by parcel post. In Germany, for example, parcels are accepted of any weight up to 50 kilos (110 English pounds), the rates are undoubtedly low (though one should remember that they do not necessarily include delivery*), and the Post-Office in Germany does probably 80 or 90 per cent. of such 'small parcels' business as that which falls to the lot of the British railways. But there is a special reason for the low rates it is able to charge. When the German railway companies of old got their concessions, it was stipulated that they should put one postal van on every train as required, and make no charge to the Post-Office either for van or for the Post-Office servants in charge, though payment might be demanded for any second van. Postal matter was thus carried, in the interests of the public, at the cost of the railway companies, and the same practice was continued when the railways were taken over by the State. In other Continental countries where the railways are State-owned or State-supported special advantages in the interests of the Post-Office have also been enforced.

In Great Britain the railways have had a fairer chance of competing with the Post-Office, and they have held their own in that competition. So big is the sum total of the business done that a single company, the London and North-Western, carries by goods

* An interesting sight at Cologne is the enormous room at the central post-office from which parcels are given out to traders and others who prefer to send or call for them, instead of paying the cost of delivery. Many of the manufacturers or tradespeople have shelves, or sections of shelves, on which all parcels received for them are located pending the arrival of their regular messenger.

trains 12,000,000 'parcels' in a year, without counting the luggage, newspapers, meat, fish, fruit, milk, etc., going by passenger trains. But, following on what I have already said as to the size of consignments diminishing as their total number increases, it is a matter of special interest to know what the relative weights of consignments may be as actually received and dealt with by a British railway company. I am glad, therefore, to be able to present the following most instructive table, which gives an analysis of the weights of consignments forwarded from the Camden and Broad Street (London) goods depots of the London and North-Western Railway Company in the course of a single day (October 21, 1902) :

Weights not Exceeding :	Camden Goods Depot : No. of Consign- ments.	Broad Street Goods Depot : No. of Consign- ments.	Total No. of Consign- ments.	Percentages.		
				Camden.	Broad Street.	Total.
Cwt. qrs. lbs.						
0 1 0	419	827	1,246	12'12	11'41	11'64
0 1 14	252	473	725	7'28	6'53	6'77
0 2 0	514	841	1,355	14'86	11'61	12'66
0 2 14	173	407	580	5'00	5'63	5'42
0 3 0	244	404	648	7'05	5'58	6'05
0 3 14	111	242	353	3'21	3'34	3'29
1 0 0	328	531	859	9'19	7'33	8'02
2 0 0	591	1,506	2,097	17'08	20'79	19'59
3 0 0	288	676	964	8'32	9'33	9'01
4 0 0	168	380	548	4'86	5'24	5'12
5 0 0	77	257	334	2'23	3'55	3'12
10 0 0	160	456	616	4'62	6'29	5'75
15 0 0	53	126	179	1'53	1'74	1'67
20 0 0	27	38	65	0'78	0'52	0'61
1 to 2 tons	33	57	90	0'95	0'79	0'84
2 to 3 "	13	15	28	0'38	0'21	0'26
3 to 4 "	9	9	18	0'26	0'12	0'17
Totals ...	3,460	7,245	10,705	—	—	—

This list abundantly justifies, I think, all that I have said as to the essentially retail character of the general merchandise business done by British railways; but, to make the position still clearer, I should like to add a brief table which includes the business done at three of the large provincial goods depots belonging to the same company:

From	Tons.	No. of Consign- ments.	Weight per Consignment.			No. of Packages.	Average Weight per Package.	
			Cwt.	qrs.	lbs.		Qrs.	lbs.
Curzon Street, Birmingham ...	1,615	6,110	5	1	4	51,114	2	14
Liverpool Stations	3,895	5,049	15	1	20	79,513	3	26
London Road, Manchester ...	1,341	5,522	4	3	12	28,277	3	22
Broad Street, London ...	906	6,201	2	3	19	23,067	3	4

These consignments were sent to a total of 720 stations (including Holyhead for the whole of Ireland), and they made up loads of which the average weight per truck was 2 tons 7 cwt. 3 qrs.

I shall deal later on with the nature and bulk of the Continental goods traffic, and the magnitude of the imports of foreign produce; but whilst on this subject of the weight of home consignments, I should like to quote the following from a speech by Lord Claud Hamilton, Chairman of the Great Eastern Railway Company, at the half-yearly meeting of that company on January 26, 1903:

Let me ask the producers of East Anglia to inquire into and seriously consider the methods existing in Denmark. There you have a comparatively poor country, mainly agricultural, with a climate inferior in most respects to that of England, and yet the producers of Denmark are able to supply our markets with steadily increasing quantities of meat, butter, eggs, and bacon, at prices that insure a profit. We carry a large portion of that traffic from

Harwich to London, and complaint is made against us that we are encouraging the foreigner at the expense of the home producer by the low rates that we charge for this Danish traffic. Low rates for Danish produce pay us better than the higher ones on English produce, and why? Because the Dane has been taught, and has been shrewd enough to profit by the advice given to him, that to obtain these lower rates he must deliver his traffic to us in bulk, so as to travel in truck-loads averaging over 5 tons per truck, whilst the Englishman persists in his old-fashioned method of handing in small consignments. You will hardly credit it, but I regret to say that practically 70 per cent. of the consignments of our general goods traffic are of 3 cwt. and less, and that consignments of 1 ton and less account for 90 per cent. of the total, the comparatively few consignments of 10 tons and above consisting principally of grain, malt, and such like traffic. No wonder, then, that we are eager, whenever we have the chance, to receive consignments, from wherever they come, of 5 tons and upwards. If the English producer will hand us traffic in consignments equal to those of the Danish producer, and packed in the same practical manner, we are prepared to charge him the same rate, and it will be to our interest to do so.

The comparative smallness of the British consignments, coupled with the speed with which the trader expects his parcels to be delivered to him, have further led to exceptional demands on the rolling stock of the railways, and constitute one of the reasons why British railway companies would not be able, as a rule, to use to advantage for the ordinary class of goods traffic (as distinct from the carriage of commodities in bulk) the same size of waggon that suits the conditions of American freight. A goods train could not stop at each wayside station of any importance while the consignments for that place were being unloaded from a large waggon. Time is gained by putting the lots for delivery at any such station in a separate waggon, which will be uncoupled on arrival, so that the train may continue its journey with the least possible delay, the process being reversed when consignments are collected. This means a great saving of time, but it also involves a good deal of light loading. In point of fact, a railway company will often enough get a load of not more than

25 cwt. for a truck which itself weighs, say, 4 tons 10 cwt. Consequently the company hauls 4 tons 10 cwt., a non-paying load, in order to earn what it can on 25 cwt., which represents the paying load. This is especially the case in regard to perishables, where immediate despatch is indispensable.

In these circumstances it is not altogether surprising to find that, while certain of the railways in the North may do well with their heavy coal, mineral, or industrial traffic, certain railway authorities in the South, who deal mostly with passengers and small parcels, are beginning to doubt whether the latter branch really pays at all. As against the general absence of industries on their lines, the fewness of large centres of population, the modest dimensions of the average consignment they get, and the shortness of the haul, they are faced especially by the terminal costs and standing expenses of stations and depots in London, the construction and working of which represent a really prodigious expenditure, even if not greater than in the case of any other railway-stations and goods depots in the world. So one finds that, while traders are ready enough to complain of the railway rates and to bring every possible pressure to bear on the companies to make them still lower, there are railway managers whose practical experience it is that the receipts from the home parcels traffic barely cover the cost of handling. In point of fact, the terminal expenses (especially in the Metropolis) are so high, in proportion to the receipts, that by the time the former have been met out of the latter there may be only a very small sum left—where the haul is short and the weight of the consignment comparatively small—to meet the cost of transit between the two points. On the other hand, although a vast amount of this small parcels business is

done by the English railway companies at a profit so modest that it is sometimes open to question if any profit from it is made at all, they recognise that what they do contributes to the comfort, convenience, and well-being of the people resident in the districts concerned, and they hope that, by helping to develop those districts, they will gain indirectly where they do not gain directly.

Concurrently with the aforesaid tendency for the freight traffic (always excepting certain branches thereof) to become more and more a small consignment business, there is the further tendency for such traffic to drift from the hands of the railway companies where only short, or comparatively short, distances are to be covered. The managers of large stores of the type already alluded to have taken to delivering their own consignments within a greater area, instead of sending by rail, as formerly; and, at the same time, there has been of late years a much keener competition with the railway companies on the part of carriers by road. Between London and Sutton, a distance of 14 miles, there are now thirty-two of these carriers engaged in carrying small parcels. With the advent, too, of motor goods-cars, the possibilities in these directions seem likely to increase rather than decrease, for the carrier's cart, or the motor goods-car, on the road, bears the same relation to a fixed, costly, and heavily-taxed line of railway that the tramp steamer does on the ocean.

It has often been brought up as a reproach against railway companies that in certain districts producers or traders find it more to their advantage to send goods into large cities, such as London or Manchester, by road than by rail. But there is not necessarily any real ground for reproach in this fact. Where the haul is a short one, a large proportion of the amount charged for transit by

rail is required for terminal expenses, which, of course, are the same in a short as in a long haul, while the general expenses of a railway must necessarily be greater than that of a carrier's cart, which pays nothing for right of way, and is, besides, able to start or return without any restrictions as to fitting in its journeys to suit the exigencies of other traffic.

In this connection it is interesting to recall some remarks made by Mr. J. F. S. Gooday, General Manager of the Great Eastern Railway, in the course of his evidence before the Select Committee on Workmen's Trains, in July, 1904. Previous witnesses had suggested that, as compensation for the granting of workmen's tickets at reduced fares to places like Walthamstow and Edmonton (mainly created as the outcome of such concession), the railway did good business in carrying goods to meet the requirements of the population. Mr. Gooday disputed this theory, saying he had had statistics prepared showing the amount of shop goods carried to the suburban districts on the Great Eastern system mainly occupied by a working-class population, and he found that, owing to the proximity of these places to London, practically the whole of such traffic was taken by road by the public carriers. 'It is evident,' he proceeded, 'that this must be the case if it is borne in mind that goods trains run by night, and therefore if goods traffic is to be sent down by a railway company it would have to be collected in London from the market or the local dealers, carted to the railway-station, loaded into trucks and taken to Walthamstow or Edmonton, and unloaded the next morning and carted to the consignees' shops; whereas a carrier can take it from the senders at any hour of the day, and deliver it to the consignees within, at the outside, two hours; and a carrier can afford to charge much less

than a railway company, with its double cartage and extra handling.' In support of this view he gave the following figures, in which Walthamstow and Edmonton, on the one hand, are compared with Colchester and Chelmsford on the other :

Town or District.	Population.	Shop Goods.	
		Gross Tonnage per Annum.	Average per Head of the Population.
Walthamstow ...	95,125	1,000	Tons. Lbs. 0'010 = 24
Edmonton ...	46,899	250	0'005 = 12
Colchester ...	38,351	13,000	0'339 = 759
Chelmsford ...	12,580	9,000	0'715 = 1,603

The railways are thus finding that the diminution in the size of consignments is being followed by a form of competition that threatens to deprive them of the privilege of carrying even the diminished parcels for distances of a score of miles or so from the centre of London or other large cities ; and one of the problems of the day is whether railway companies themselves should not become carriers by road as well as by rail, by a resort to motor-cars or motor-waggons of their own in districts which lend themselves to this form of enterprise.

From what has been already said, it must be obvious, even to those least acquainted with the details of railway work, that the big loads of foreign produce, well packed and in regular quantities, afford to our railway companies a *maximum* of traffic which they can carry with a *minimum* of trouble. On the other hand, to collect, carry, and deliver an ordinary train-load of miscellaneous

lots of English produce is a very different matter indeed. Such a train will stop at a variety of wayside stations to pick up odd trucks, only, it may be, a quarter full of a variety of small consignments, each of which has its separate way-bill, and has involved as much clerical work as a load of many tons would do. The coupling-on of these separate waggons will mean a good deal of running about on the part of the engine, with the inevitable delays; and it may well happen that, whereas a train loaded with foreign produce would run from the port to London in two hours, an ordinary goods train, collecting consignments of English commodities from point to point, would take six or seven hours to accomplish the same journey. In the latter case, therefore, there must be taken into account the increased coal consumption by the engine, the wages of the men on the train, and the substantially larger number of persons, all along the line, who have had work of some sort or other to do with such a train as this, as compared with those concerned with the other train, loaded up with foreign produce at the port, and then coming right through to London. One must also consider that, though the train of foreign produce may have the same number of trucks as the train of home produce, each truck of the former will be full, whereas, owing to the spasmodic character of the English traffic, the other train will have, possibly, only 1 ton or less in each truck. So the foreign train, apart from all question of expense, will be much more profitable than the other.

Then, again, when the train of British produce, got together in the tedious manner here described, arrives in London, each of the various consignments must be picked out, examined, and classified according to its destination. If the bulk of them should be for delivery at Smithfield, Covent Garden, Spitalfields, or the

Borough Market, the van-men for each market will go from one truck to another until they have gathered in a good load, and they will then set off to deliver the consignments to a dozen or a score of consignees. This would take time even in the most favourable of circumstances; but it may so happen (at Covent Garden, for example) that, owing to lack of adequate provision for receiving the produce, or to lack of attention on the part of the consignees, the railway carmen will be delayed from two up to five or six hours before they can get rid of their loads. To the railway company concerned this means that they are paying wages to the men for the time lost; that they are deprived of the use of horses and carts for so many hours; that the depots get congested with freight, because it is not cleared away so quickly as it should be; and that, to avoid further trouble, the company may even be obliged to hire outside cartage in order to get the place clear.

The farmer in the country may not know, or may not think, of all these things when he sends off his little lot from a wayside station to the London market, though he may consider himself aggrieved because the train-loads of meat from America or Holland, or bacon from Denmark, are carried past his farm at a lower rate than he can get for his own few hundredweights. It may be difficult to convince him that the whole position must be judged from the point of view of wholesale and retail; but every reasonable-minded person will see that, where the conditions of the services rendered vary so fundamentally, there must be some difference in the charges made in respect to them.

If the actual cost to the railway company of the particular services rendered may be fairly taken into consideration in fixing the rates charged, then a difference per ton between truck or train loads and miscel-

laneous consignments is fully warranted. The principle here involved is, in fact, one that, with unending variations, is applicable to almost every phase of commercial and industrial life. Not only, too, is the reduction for a wholesale quantity justified by the conditions under which the traffic is carried, but in many cases, if the companies were to charge more than a certain rate for the transport of foreign produce, they would run the risk of losing the business altogether, without, it may well happen, the slightest benefit being conferred on the home trader, who will have felt it a grievance that his own consignments have had to pay on a higher scale. How traffic may be diverted, for example, from one route to another, and be lost to a railway company altogether, is well shown by the following illustration :

At one time considerable quantities of American cheese were imported into Liverpool, and were thence brought on by rail to London. It was packed in convenient boxes, which could be placed one on top of another in the railway waggons until these would hold no more. The rate charged was about 25s. the ton, and this was certainly a lower rate than was in force for cheese made in Cheshire, the reason being that not only was the latter offered in comparatively small quantities, but the different lots could not be 'piled,' as in the case of the American cheese, and had to rest on the floor of the waggon, so that much more space was occupied. But this 25s. rate was practically a tax imposed on the American dealers, inasmuch as they could ship from New York to the Thames direct for virtually the same amount as they paid for the voyage from New York to Liverpool. The difference in time between the two routes was the saving of, in certain cases, a few days on the latter, and this saving, as I have said, cost the traders 25s. a ton. The quicker

route was persevered in for some years, but eventually the traffic in American cheese for the London market deserted Liverpool, and it now comes mainly to the Thames direct. The traffic was lost to the railways because it could not 'bear' even the 25s. rate, but the Cheshire farmer has in no way gained by the change.

Apples from the United States continue to arrive at Liverpool in such quantities that the mere decrease in the weight of those conveyed from Liverpool to London in the autumn of 1904 represented a reduction in the carryings of one railway company of from 10,000 to 12,000 tons. Apples are, of course, more perishable than cheese, so that in their case the shorter route to London, *viâ* Liverpool, is preferable, while from Liverpool the agent can—if the market conditions suggest the adoption of such a course—forward the consignments to the large industrial centres of the North in preference to London. On the other hand, the addition to the freight of the cost of the land journey from Liverpool to London is a consideration for the dealers, and in course of time American apples for London will probably follow the example of American cheese for London, and come all the way by water.

The reader will see from these examples that there are uncertainties in regard to import traffic which railway managers must necessarily bear in mind, though any rate they may make from a port to an inland town is, in point of fact, equally applicable to home or foreign produce, the Railway and Canal Traffic Act of 1888 having laid down that 'no railway company shall make, nor shall the Court or Commissioners sanction, any difference in the treatment of home and foreign merchandise in respect to the same or similar services.' Under equal conditions, therefore, the railway companies are bound by law to give an absolute equality of

treatment, without any regard to the question whether the commodities they are asked to carry are of foreign or home origin.

Nothing would satisfy British railway companies better than to be called upon to handle British produce or British merchandise in quantities corresponding in any degree to those received from abroad, and no fallacy could be more untenable than the idea that British railway companies would rather encourage traffic in foreign than in home products, assuming that the conditions could by any possibility be made equal. There is one especially material fact in this connection which should be borne in mind.

That our imports greatly exceed our exports is a fact with which everyone is familiar ; but everyone may not have thought that, as a natural consequence of this state of things, the railway trucks bringing full loads of foreign goods from the ports may have very poor loads, or no loads at all, to take to those ports. What happens in the case of such a port as Liverpool, is that hundreds of railway waggons will be sent for the timber, the grain, the raw cotton, and the other commodities arriving there in such large quantities, but they will go to Liverpool, to a very great extent indeed, as empties. One of the greatest troubles in a railway manager's life, in such circumstances as these, is how to avoid the haulage of so much dead weight, and the position will be rendered still worse if it should happen that more trucks have been sent to Liverpool than there is incoming cargo to fill them.

This may readily happen in spite of the most careful calculations, for the freight business at Liverpool will vary as much as 500 loads a day, and it may be that a substantial number of waggons, which could be usefully employed on some other parts of a railway company's

system, will be tied up at Liverpool for two days or more, not earning a single penny.

If the railways really wished to show greater favour to one set of traders than to another, in order to encourage traffic, they would, in some instances show it to the home producer sending traffic to the ports rather than to the import traffic going in the reverse direction. In most cases, too, where alleged anomalies are detected between the rates from a port to an inland town and the rates from the same town to the same port, the difference is due to the fact that in the latter case the traffic does not exist, so that there is no need to offer the particular rate available in the former case.

Another fact I should like to bring out as bearing on our general home conditions is that on British, as on American, railways it is a matter of almost daily occurrence for the officials to be in communication with traders who desire reductions of rates between certain towns or districts, and though the English companies have less freedom of action in such matters (owing to Parliamentary requirements, Board of Trade regulations, and so on) than they could desire, the granting of such concessions is not only, as a rule, a simpler matter than on Continental State railways, but is of much more frequent occurrence than the average critic of British railway policy would lead the public to suppose. The one requirement of the general manager of a company-owned railway is to be convinced that good business will follow from any practicable concession that is made—in other words, that wholesale lots will be offered, or other compensating advantages assured, in return for wholesale rates. Numerous instances could be mentioned in proof of this assertion, but a few must suffice. Thus, in the neighbourhood of Clonakilty, County Cork, an important industry in the

growing of new potatoes for the English markets has sprung up within the last few years, to the great benefit of the district, the starting of such industry having been inspired by a local railway manager, and rendered a success entirely owing to the specially low rates conceded for its encouragement. The total weight of the new potatoes thus despatched from the district in question to markets in England and Scotland during the season of 1904 was over 150 tons. A breeder of ducks in a Lancashire coast town asked the London and North-Western and Lancashire and Yorkshire Railway Companies for a lower rate for ducks between that town and Manchester, saying that if it were granted he could work up a good business. After investigating the matter the companies concurred, and reduced the rate in question to the equivalent of 1d. per bird. The results have been satisfactory to everyone concerned, for in the year 1903 the companies carried for this one trader alone no fewer than 35,000 ducks, representing a total weight of nearly 80 tons. In the autumn of 1902 iron segments for tube railways were being sent in large quantities from Stockton to London by sea, conveyance by rail being regarded as impracticable on account of the greater cost. But two railway companies, acting in combination, offered an exceptionally low rate, provided they got 40-waggon lots, with 8 tons to a waggon. The arrangement suited the contractors, and the railways concerned secured a big business under profitable conditions.

On the other hand, there are many instances where there is no need for special concessions to be made to traders, inasmuch as lower rates are already available, if only they will take such steps, in the way of combining their consignments, as will allow of advantage being taken of them. An especially instructive illustra-

tion of this fact arose early in 1905, in connection with an association of farmers on the Lillieshall Estate of the Duke of Sutherland at Newport (Salop).

It was hoped that by means of combination the local producers would be in a better position both to get their supplies and to forward their consignments more cheaply and to better advantage, than if they all acted independently. The London and North-Western Railway Company gave cordial approval to the scheme, and undertook to erect a shed on the station premises for the use of the association, charging only a nominal sum for rental to cover interest on cost of construction. Then a difficulty arose with regard to railway rates. The association asked what reduction would be made in the rates, in consideration of the consignment of larger quantities. To this the chief goods manager of the company, Mr. Frank Ree, answered that the consignment of large quantities at very low rates was provided for by the charges already open to the farmers for 10-ton or 4-ton lots, and he explained that the rates in question had been fixed at the amount stated with the expectation that large quantities—that is to say, quantities much larger than 10 tons or 4 tons—would be sent by them; but the *minimum* was kept low on purpose to allow of smaller traders having the benefit, as well as those who could consign in really big quantities.

This explanation was regarded as disappointing, and thereupon Mr. Ree went to Newport and addressed a meeting of the local agriculturists, held at Lillieshall, under the presidency of the Duke of Sutherland. In the course of his speech the chief goods manager referred to a table which had been drawn up by the London and North-Western Railway Company, showing the actual payments made to them per consign-

ment by the farmers of the district; and he went on to say:

What we learn from this table is that, under existing conditions, over 80 per cent. of the consignments are carried at the higher rates, and only 20 per cent. at the lower rates for larger quantities. Taking the difference between what was actually paid and what might have been paid, we find that if the eighty-two members of your society had combined their lots, so as to form large consignments, and thus secure the lower rates, they would have paid the railway company about 12 or 13 per cent. less in carriage than they did. A saving of 12 or 13 per cent. is one that should surely not be despised. The London and North-Western Railway Company think themselves very lucky if they can pay 7 per cent.

On eliminating from the table in question consignments of 4 tons and upwards for the big men (who are often able to buy in large quantities), and taking only consignments for the smaller farmers (to whom the value of such an organization as yours is proportionately greater), I find that by combining their consignments the members of your society might have effected a saving on their actual payments in railway carriage alone of something like 19 per cent.

As regards, again, the big farmers themselves, the figures compiled afford interesting evidence of the fact that only in few cases do even they receive individual consignments in sufficient bulk to come within the lowest rates on the railway company's books.

Considering that there are 178 farmers and others in your district who draw their feeding-stuffs from our stations, the figures I have quoted show, I think, what a very substantial gain might be secured by them on the basis of lower rates which are already available, but of which, as our statistics prove, so little use is now being made.

A review of the general traffic conditions on the British railways thus shows in effect that, owing to the exigencies of our trade, the tendency is for business to be done more and more in the form of small consignments sent at frequent intervals; that for one reason or another British traders cannot, or do not, make up such big individual or collective lots as are represented by the imports of foreign consignments; that if they could possibly supply lots of equal bulk, delivered under the same or similar conditions, they would get the same rates; that, failing this, it is still open to them to obtain

special terms from the railway companies, if they can show good cause why such terms should be granted; and, finally, that the lower rates they desire may be already standing on the rate-books at the local stations, ready for any group of traders who, by means of a little friendly combination, are able to make up the specified quantities.

CHAPTER IX

THE SOUTHAMPTON CASE

IN 1895 there was fought out before the Railway and Canal Commission, on the subject of alleged preferential rates as between imported and home produce, a legal battle, the details of which still afford abundant food for reflection for those who may consider that the railway companies show undue favour to the foreigner in carrying his imports at lower rates than they charge for the smaller consignments of the British farmer.

The case in question was one in which the Mansion House Association (inspired thereto by the London Docks Company, rendered uneasy by the competition of the port of Southampton) alleged against the London and South-Western Railway Company that they were unduly preferring foreign traders and subjecting home merchandise to an undue prejudice by means of the rates charged on goods imported at Southampton, and carried at a lower rate than home produce, in contravention of the provisions of the Railway and Canal Traffic Act, 1888. This Act, which explains and amends the existing law as to undue preference, contains the following proviso: 'Provided that no railway company shall make, nor shall the Court or the Commissioners sanction, any difference in the tolls, rates, or charges made for, or any difference in the treatment of,

Description of Merchandise.	From Fifteen Stations mentioned in the Application.								Conveyed via Southampton at Proportions of Throughout Shipping Rates.										
	Total Weight.				No. of Con-sign-ments.	Average Weight per Consignment.				Total Weight.				No. of Con-sign-ments.	Average Weight per Consignment.				
	Tons.	cwt.	qrs.	lbs.		Tons.	cwt.	qrs.	lbs.		Tons.	cwt.	qrs.	lbs.		Tons.	cwt.	qrs.	lbs.
Bacon and hams	13	17	1	9	101	—	2	3	0		3,214	6	1	20	175	18	7	1	11
Butter ...	20	16	0	13	136	—	3	0	7		388	3	1	22	27	14	7	2	0
Cheese, packed ...	24	9	3	27	129	—	3	3	5		4,710	14	3	19	60	78	10	1	0
Fresh meat ...	357	9	3	13	1,566	—	4	2	7		10,638	5	3	3	286	37	3	3	20
Hops ...	326	2	3	2	128	2	10	3	23		2,529	11	2	11	60	42	3	0	22
Lard ...	—	7	2	0	1	—	7	2	0		528	16	0	17	55	9	12	1	5
Wool ...	1	1	0	10	2	—	10	2	5		17,903	2	3	6	102	175	10	1	18
Hay, press-packed	2,991	2	3	0	973	3	1	1	19		5,611	9	0	12	48	116	18	0	12

NOTE.—During the periods covered by the above table there were taken by the London and South-Western Railway Company from London to the fifteen stations in question 2,000 tons of ham and bacon, 950 tons of butter, and 1,885 tons of fresh meat.

home or foreign merchandise, in respect of the same or similar services.' The applicants alleged that this provision was being infringed by the railway company, inasmuch as imported bacon and hams, butter, cheese, fresh meat, hops, lard, wool, and hay were being carried by them to London at lower rates from Southampton Docks than they charged for the same commodities from Southampton Town and fourteen other stations in the same district.

The railway company replied that the rates charged were in each case reasonable, and that the differences as between those for foreign and home consignments respectively were fully justified by the differences in the conditions under which they were carried, these respective conditions not representing 'the same or similar services' within the meaning of the Act.

In support of this view the railway company showed that the home produce from the various local stations in question represented only a comparatively small total weight, handed to them in many consignments of, as a rule, a few hundredweights only, whereas the foreign produce was tendered to them in large quantities, representing very substantial individual consignments. The reader will be able to form his own conclusion on this point from a study of the table on p. 112, which gives, in each case, the traffic dealt with for periods ranging from eleven to nineteen months, though from certain of the local stations included in the list no traffic at all in some of the commodities specified was carried during this period.

As regards the differences in the circumstances under which the imported and the home produce respectively were carried by the railway company, I would venture to set out these in the following form :

IMPORTED PRODUCE.

No services rendered by the railway company to imported traffic. Produce loaded into trucks at the docks, and tendered to company in full train-loads.

With the Canadian and American consignments one or two invoice entries suffice, and the total amount is debited in one figure to the shipping company.

Consignments of many tons are delivered by crane from railway truck to consignee's van.

HOME PRODUCE.

Services.

Services to home produce comprise receiving, weighing, loading, covering, shunting, provision of station accommodation, superintendence, and clerkage.

Small consignments have all to be received, checked, weighed, loaded, and invoiced separately. Each involves the making out and the collection of a separate account.

Small consignments are conveyed to various vans, or tendered to separate consignees.

Train-Loads.

Full loads of 4, 5, or even 6 tons per truck.

Average load for commodities in question from 1 ton to 25 cwt.

Conveyance.

Train loaded up with foreign produce runs direct from dock gates to Nine Elms (London) without shunting, making the journey in three hours.

Trucks from Southampton to London are sent back the same evening fully loaded.

Forwarded in pick-up trains, stopping at various stations, and much delayed by shunting operations, journey occupying from five to six hours.

The provision of trucks at small stations for irregular and small consignments is costly. Such trains often remain for several days at stations awaiting the light loads they ultimately receive.

Average Earnings.

Trains conveying imported produce earn 12s. 4½d. per train mile.

Average earnings in goods and mineral traffic throughout the London and South-Western system, 5s. 5½d. per train mile.

Station Accommodation.

Boxes piled one upon another (if traffic is to be stored), the smallest proportion of space giving accommodation to many tons.

Two or three small bales, weighing a few hundredweights, occupy same space as several tons of import traffic. Provision of station accommodation ten times more costly.

IMPORTED PRODUCE.

HOME PRODUCE.

Meat.

Frozen. Can be packed tier upon tier, giving waggons their ordinary carrying load.

Fresh. The small consignments (see table) either packed in hampers or hung upon hooks, occupying much space and liable to injury.

Bacon and Hams.

Secured in strong wooden boxes, which weigh about three to the ton. Boxes included in the total weight on which carriage is charged. Afford full loads to trucks, which convey an average of more than 4 tons. Practically no liability to damage. Cases can be unloaded by cranes. (See table: average weight of consignment of imported bacon 18 tons.)

Generally in canvas; frequently brown paper. Impossible to secure full loads for the trucks. Liable to damage by rough handling, dirt, or damp. Must be unloaded by hand. Low rate for bacon and hams in 1-ton lots from Southampton and Winchester to London, but no consignment of home produce of that weight tendered at either station during 1894. (See table: average weight per consignment 2 cwt. 3 qrs.)

Hops.

Packed in square bales which fit the trucks.

Packed in round bales which do not fit the trucks.

Hay.

Hydraulic or steam pressed. Can be loaded 4 tons to the truck.

Can be loaded only 2 tons to the truck.

There was not the slightest doubt that if consignments carried under the conditions more favourable for the railway company had been British, no suggestion would have been raised as to any undue preference in carrying them at a lower rate than was charged on the others. To deny, therefore, to foreign imports an advantage which, in respect to 'the same or similar services,' could have been secured by the British producer would have been a clear contravention of the spirit of the Act. As Mr. Justice Collins observed, the mere fact that the goods are foreign goods does not 'turn a difference into a preference.'

In the result the Commissioners found that, save in the case of fresh meat, hay, and hops, the differences were fully justified ; but though in regard to these three commodities modifications of the rates were ordered, the result of the Southampton case was to clearly uphold the principle that the concession to consignments (no matter what their source of origin) carried in large quantities, and under conditions favourable to economical and profitable operation, of lower rates than to small and irregular lots, the handling and transport of which involve much trouble and higher working expenses, does not necessarily constitute an 'undue preference.'

CHAPTER X

SUNDRY SERVICES

IN addition to collecting, transporting, and delivering the consignments entrusted to them by traders, British railway companies perform a variety of services which, in the aggregate, represent the offering of some very great conveniences to the individuals concerned, while affording also substantial facilities for carrying on the trade of the country.

One of the most practical of these additional services is in the provision of warehouses in which traders who require such accommodation can store their goods pending shipment, disposal to purchasers, or to suit the exigencies of their own businesses. There are dealers, for example, who buy up large quantities of raw material or manufactured articles when prices are low, but have no immediate purchaser, cannot accept delivery at once owing to a lack of warehouse accommodation of their own, and are glad enough to leave the commodities in charge of some railway company or other until they can dispose of them profitably. There are manufacturers who, executing big orders for foreign customers, send on the goods as they are made to the railway company—instead of keeping them on hand—and let the railway people store them until the whole have been completed and are ready for despatch, when instructions will be given for consignment in bulk to a certain vessel at a

certain port. There are still other traders who will leave foreign goods on the hands of the railway companies at the ports until they can arrange their sales. To meet these various needs, the railway companies erect in all large industrial and commercial centres huge warehouses for the storage of consignments, and they provide also staffs of men to do the necessary work, together with large numbers of drays and horses, and the various appliances—hydraulic, electrical, or otherwise—needed for the efficient performance of the various operations.

These warehouses represent much more of an advantage to the traders than any direct profit to the railway companies. The arrangements vary somewhat in each district, according to circumstances; but the general principle is that free storage shall be allowed for a certain specified period, at the expiration of which time a small charge—that is to say, one of a few pence—per ton per week is made. In some instances the charges are increased 50 per cent. if the goods are not removed within fifty-two weeks. In effect, the bulk of the consignments stored are removed within the free period, so that for all the work which the warehousing of these may entail the railway company receives nothing. It is only when the free period has been exceeded that the railway has a chance of getting back something towards the payment of interest on capital. Indirectly a company benefits, because, as a rule, it makes sure of the commodities being carried over its own lines. But, taking the railway warehouses as separate establishments, apart from any question of transport and the rates thereon, it is extremely doubtful if, generally speaking, the receipts—under the circumstances indicated—suffice to cover expenses and capital charges.

As an example of one of the largest and most modern of railway warehouses in the country, reference might be made to the new Deansgate Goods Station, in Manchester, constructed by the Great Northern Railway Company at a cost of £1,000,000, and opened by them in 1900. The three storage floors in this warehouse are each no less than $1\frac{1}{4}$ acres in extent. They are reached in succession by powerful hydraulic lifts from the ground floor, where the goods are either received from the drays or loaded direct into the railway waggons, as required. The collection of commodities stored in the warehouse is of the most varied type. In one place, for instance, the visitor sees barrels of colour materials from abroad; in another, bundles of paper hangings; and on one floor allotted to that purpose, cases of Lancashire textiles already marked (sometimes in both English and Chinese) for the places to which they are to go—Hong-Kong, Bangkok, Batavia, Karachi, Colombo, Sydney, and so on. At the time of the war between China and Japan the railway warehouses in Manchester were full to overflowing with goods awaiting the conclusion of peace, some even of the largest manufacturers being glad to make use of the railway buildings for the storage of such portions of their consignments as they could not find room for themselves.

The advantage to the trade of Lancashire of the facilities thus offered is undeniable, for if every manufacturer or commission agent (the latter, in many instances, now having only a small office) had to keep goods on hand until a few days before their shipment, the result would be a very substantial increase in working expenses, and a proportionately serious handicap on the transaction of business. It may be, on the other hand, that the railway companies are not altogether free agents in the matter, and that the warehouses have

now become an essential part of their operations, because if they were to reduce the said facilities the effect would certainly be—in the case of Manchester, at least—the consignment of goods to Southampton or London by sea in still greater volume than is, in fact, already the case, free warehousing notwithstanding.

At Bradford the warehouses of the Great Northern, Lancashire and Yorkshire, and Midland Railways are largely devoted to the storage of wool, the free periods allowed before any charge is made varying according as the commodities represent 'inwards,' 'outwards,' or 'shipment' traffic. The last mentioned goes from Bradford in such quantities that a single railway company has carried 50 tons of wool to a single ship for two local firms. As in Manchester, one finds the same practice in vogue of traders having unpretending offices, and leaving the railway companies to do the whole of their warehousing. They attend the wool sales in London, Liverpool, Antwerp, or elsewhere, and they also import direct from Australia, New Zealand, and Argentina; but, in any case, they leave the railway company to take charge of the wool for them until it is wanted. So it is that the Great Northern Company have one warehouse in Adolphus Street, Bradford, devoted exclusively to the storage of wool, of which it can hold from 50,000 to 60,000 bales—with this further advantage to the trader, that in this instance the insurance companies will accept a 3s. per cent. lower premium than on wool stored in a warehouse for miscellaneous goods. Another of the same company's warehouses in the City Road, Bradford, has a storage capacity of about 150,000 bales.

The amount of trouble to which a railway company is put by the warehousing system is especially great in the case of wool. If the bales were for direct delivery

on arrival, they could be transferred from truck to dray at any part of the railway yards; but the removal of the bales to the warehouse renders it necessary that the trucks shall be placed in a certain position on the ground floor of the warehouse, so that a good deal of shunting has to be done, while much time also is lost. On the floors of the warehouses the bales of each particular trader are piled up in heaps to a height of four or five bales, and these heaps are sometimes of such magnitude that at the Great Northern warehouse in the City Road, Bradford, I saw one which contained 594 bales, while another occupied 200 square yards, and was estimated to represent 1,040 bales. Each bale is marked (though the marks are apt to become scarcely decipherable, owing to dirt, age, or grease from the wool), and it is a matter of almost daily occurrence that a railway company should be instructed to deliver particular bales to certain individuals or firms, with the result that the entire heap belonging to the trader in question may have to be turned over before the bales that are wanted can be discovered. At least three hours may often be occupied in searching and replacing on each occasion, though much more time would be wanted to discover, say, 20 or 30 specified bales among the aforesaid group of 1,040.

How these general conditions work out in actual practice may be judged from the following concrete examples: (1) A consignment of 87 bales of wool from Antwerp, received at Bradford *viâ* Goole. All were transferred, in the first instance, by the railway company's servants from the trucks to the railway warehouse. The number or mark on each of the 87 bales had to be entered in the checker's book, and thence transferred to the wool ledger, so that every bale could be traced in case of need. The consignment

changed hands three times while in charge of the railway company, who had to advise each new holder as to the number of bales on hand. The bales were finally distributed by the railway company in twenty different deliveries to various firms during a period extending over thirteen weeks. That is to say, the railway men had to turn over the bales on twenty separate occasions to pick out those bearing particular marks, and deliver these to the individuals or firms who had purchased them, the date of despatch of each of such deliveries, and the particular bales included therein, being also duly indicated in the wool ledger. The sum total received by the railway company (beyond, that is, the ordinary charges for 'terminal services') for providing the warehouse accommodation and going through all these operations was 19s. 6d. (2) A consignment of 85 bales, warehoused, and redistributed by the railway company in twelve separate deliveries. Warehouse rent, 2s. (3) A consignment of 54 bales, warehoused, and redistributed in eight separate deliveries. Warehouse rent, 1s. 8d. In all three instances the railway company would have received no extra payment at all in respect to this work if the traders had been able to arrange for delivery from the warehouses to their customers within the free period.

At Dewsbury I found sheds belonging to the Great Northern and Lancashire and Yorkshire Railway Companies for the storage of bales of rags, used for the making of shoddy in the local mills. The rags come to Dewsbury from all parts, not only of the country, but also of the Continent of Europe, and are disposed of at periodical auctions. The bales remain in charge of the railway companies, under the operation of their warehousing arrangements, samples being taken from them for the purposes of the sales, and delivery is

effected by the railways according to the instructions they eventually receive. The wholesale dealer, therefore, requires no warehouse of his own, the whole of the labour involved in the handling and storage being done by the railway. With the rags, too, as with the wool, a whole heap of bales may have to be turned over before a particular mark or number can be discovered. When, again, a certain quality of rags is either a drug on the market or so especially mal-odorous that no one wants to buy it, the railway company may have it left in their keeping for any period up to two years.

At Liverpool the railway warehouses are especially large and numerous—in fact, it is not too much to say that the business of the port could not very well be conducted without them, though it is no less true at Liverpool, as elsewhere, that, considering the large amount of capital sunk in their construction, and the considerable proportion of goods for which no ‘rent’ is charged, the warehousing itself—apart from the increased traffic it brings to the lines of the companies concerned—does not pay. The commodities one finds in these Liverpool warehouses are of the most miscellaneous kind—reels of paper, American organs, bales of hides, casks of copper sulphate, boxes of bacon, sacks of grain, etc.; while in some instances the convenience of individual traders has been so far studied that one sees considerable stretches of floor-space occupied by onions, taken from the cases and spread out to insure their keeping in better condition.

Traffic taken into the railway warehouses at Liverpool to await shipment, after having been conveyed to that port by rail, is given free storage for periods as follows: Traffic in classes A and B, 48 hours free; traffic in classes C to 5, 14 days free. Imports taken into the

warehouses to await conveyance by rail are required to pay rent from the hour of receipt. The ordinary charges for storage range from 2d. to 8d. per ton per week, or part of a week. On traffic to and from Birmingham, South Staffordshire, and East Worcestershire stations free storage for one month is allowed. The extent of the accommodation provided by the different railway companies interested in the port may be judged from the following statement as to the warehouses of the London and North-Western Railway Company :

Warehouse.	No. of Floors.	Area of Floors.
Alexandra Dock	5	About 6,000 square yards.
Canada Dock	5	" 5,500 "
Waterloo	3	" 6,000 "
Park Lane	3	" 10,000 "
Brunswick	2	" 3,000 "
Totals	18	About 30,500 square yards.

In London a very considerable amount of warehouse space is afforded by the different railway companies in the interests of traders, many of whom would be put to great expense and inconvenience if it were not available. Here one finds collections of window-glass, wool, reels of paper for the newspaper offices, crates of pottery, drapery, carpets, malt, baskets, and other things, which are stored until they are wanted by the traders. The rent charged in London is somewhat higher than in the country, but most of the commodities going into the warehouses are taken out again within the free period of fourteen days, so that nothing is then received by the company in return for the accommodation afforded and the trouble given. Many

of the traders organize their business in such a way as to clear out within the fortnight the whole of a particular consignment sent to them from the manufacturer in the country. They then have in a fresh stock, for which, in turn, there will be another two weeks' free storage, orders being sent by them to the railway company from day to day, or at other convenient intervals, for such quantities as may be needed for immediate requirements. Newspaper managers find the arrangement especially convenient and economical in regard to the storage of the paper they use, though newspaper editors are none the less ready to encourage and to support complaints as to the 'extortionate' character of railway charges in general!

It is difficult to convey an adequate idea of the total expenditure incurred even in London alone by the different railway companies in the provision of these warehouses, from which they have so little reason to anticipate any direct return. I have not made the round of them, for I thought that unnecessary; but, by way of seeing what is done in the very heart of the City of London, where the value of land attains to almost fabulous proportions, I visited the Broad Street depot of the London and North-Western Railway Company. Here I found two huge warehouses, one, in Eldon Street, having a floor-space of 15,700 square yards, and the other, in Wilson Street, having a floor-space of 13,800 square yards, a total of 29,500 square yards for the entire depot. The Wilson Street branch is the newer of the two. Furnished with every possible convenience, it is a perfect model of a commodious and thoroughly efficient warehouse of the best type. But this one building—without reckoning the Eldon Street branch of the Broad Street depot, and also without

reckoning the other warehouses of the same company in other parts of London—represents a capital expenditure of no less than £95,000.

What I have said on this matter should suffice, I think, to show (1) that a British railway rate may include a great deal more than mere haulage, and (2) that the important item of warehousing offers still another proof of the absolute fallacy of comparing English rates per ton per mile with the rates per ton per mile charged by American railway companies, who, apart from all other considerations bearing on this point, provide no warehouse accommodation at all for their patrons.

The affording to British traders of facilities in the matter of warehousing such as those I have described has led to certain abuses in regard to the use of railway trucks. In November, 1904, a Nottingham trader wrote to *The Times* to lay before the public 'a specific case,' as he called it, 'of the way some of the railway companies injure agriculture by charges of an extortionate character.' On July 19 his firm had on the Midland and Great Northern Joint Railway Companies' system at Thorney Station eight trucks of straw (24 tons), of which two were sent away on July 23, two on July 30, two on August 7, and two on August 18. In other words, the firm had the use of eight trucks for various periods, ranging from four days to a month. For this accommodation the railway companies had demanded £18 10s., whereas they should, he argued, have charged only 3s. 8d., being at the rate of 4d. per ton per week, after one week free.

What had happened, of course, was that the trader, buying up a lot of straw, had had it loaded on to the railway waggons, and kept them standing idle on the lines while he found a customer. From his point of

view he should have been charged only ordinary warehouse rent for the use of the trucks, whereas he had been charged demurrage. Hence the alleged extortion. But railway trucks are not a 'warehouse,' and when they are used as such the result is, first, that lines which have cost a good deal to construct, and may be required for other traffic, are blocked; and, secondly, that the railway is deprived of the use of the trucks, and may either suffer, or subject other traders to, inconvenience through a shortage of trucks at a time when they are especially wanted — say, for the coal traffic in the autumn. In the case in question the trader was allowed free use of the trucks for forty-eight hours in which to complete his arrangements; but to say that he should not be asked to pay more than ordinary warehouse rent for railway trucks, when he thought fit to convert them into a warehouse on wheels, was clearly an absurdity, and in no way 'extortion.'

Then a Nottingham firm of hay and straw dealers sent, about the same time, a similar complaint to the *Nottingham Daily Guardian*. In this case the firm in question had had 21 trucks on the same line of railway for a total of 85 days, as follows: One truck, 17 days; one, 14 days; one, 13 days; one, 10 days; two, 9 days; two, 7 days; three, 6 days; one, 4 days; four, 3 days; five, 2 days; and the railway companies had charged £21 10s. for this accommodation, instead of warehouse rent, working out at a little over half a sovereign. 'Such matters as these,' the firm wrote, 'are very important to British agriculture, and the public should know how the railway companies take advantage in this way.' For my part, I think it equally desirable the public should know how hay and straw dealers, at least (and they, surely, are British middlemen rather than British farmers), may seek to take advantage of the

railway companies. In any case there is no basis for grievance unless it be on the part of railway shareholders.

'Returned empties,' again, represent a branch of railway operation which may be very convenient to the traders, but, in itself, is wholly unprofitable to the railway companies. If the latter were the actual owners of the empties, they would often prefer to leave them to be chopped up for firewood rather than incur the expense and trouble of returning them; but the trader gets his empties back on terms which are so low that he insists on having them, and he thinks it is no concern of his that railway companies take complete train-loads of empties into London at rates which are unremunerative in themselves, while the trucks used for their conveyance may themselves have to return to the country empty when, as often happens, no fresh consignments are available. Near Islington there is one station (Maiden Lane) which is now entirely set aside for the business of handling empties, the cost of working the station being about £800 a year. Not only, therefore, may a British railway rate include a fortnight's free warehousing before despatch, and another fortnight's free warehousing before delivery, but it may also represent an obligation imposed on the railway company to return to the trader his empties at a charge which is generally less than the actual cost of the service rendered.

Another fact not generally realized by the general public is that many of the railway companies keep stocks of grain sacks and meat hampers and cloths, which they let out to farmers, dealers, and others. It will suffice if I state what is done by the Great Eastern Railway Company. On this line the stock of grain sacks kept on hand represents a total of between

700,000 and 750,000. The charge made by the company for the hire of the sacks is at the rate of one halfpenny per sack, this halfpenny covering a period of four days for filling, a delay of consignments at the railway-station for two days awaiting instructions, and a further three weeks for conveyance of consignment and return of the sacks to the company. Should that period be exceeded, a charge of one farthing per sack per week is made for demurrage. Of hampers for meat the company have a stock of about 800, but 25 per cent. of these disappear each year; and the meat cloths which the company purchase for use with the hampers also have to be annually renewed to the extent of from 4,000 or 5,000. The charge for the use of the hampers, including a liberal supply of cloths, is 5s. per ton, or 3d. per cwt., on the weight of the consignment.

It is further deserving of mention that some of the railway companies have also organized markets in connection with their London lines, thus not only affording an additional great convenience to the traders, but enabling them to save a good deal in the way of cartage. The potato market at King's Cross has, for example, been established there for a period of no less than forty years. It is located on the original terminus of the Great Northern Railway Company's system in London, at the rear of the existing station, and extends over an area of 4 acres. On the street side of the market there is a row of thirty-nine potato warehouses, each of which opens out, at the back, on a platform alongside a 'run' capable of accommodating three or four railway trucks at a time. These 'runs' are at right angles to the various 'roads' entering the market from the main lines, a series of no fewer than fifty turntables allowing of a truck being turned from any one of the roads into any one of the runs.

Altogether the market will accommodate about 200 trucks.

The warehouses are occupied by different firms, who give notice to the railway officials which particular truck or trucks consigned to them, and awaiting their convenience, they wish to have brought into the runs. There the work of unloading, riddling, putting into sacks, weighing, etc., will be done, the potatoes not already disposed of being stored on the warehouse level, where the contents of fifteen or twenty trucks—say, from 90 to 120 tons—can be easily accommodated, or in the vaults underneath, where provision is made for another 100 to 150 tons. Some of the merchants have their own businesses in Covent Garden, Spitalfields, the Borough, or other markets, and consign there as needed; but independent buyers, including greengrocers and costermongers, come to the market from all parts of the Metropolis, and the scene on Thursdays, especially during the potato season, which lasts from October to February, is one of great activity. Outside the market proper there is an extensive group of sidings, where trucks for which room cannot be found under cover will be ranged; and it may so happen, at the height of the season, that other trucks of potatoes will have to be kept at Holloway because there is no room enough for them on the sidings at King's Cross. The average number of full trucks generally on hand (including a certain proportion of trucks laden with celery, cabbages, or carrots) is 500, and the average number unloaded per day is 100. In the very height of the season as many as 1,000 trucks of potatoes have been standing on the lines in and around the market, or awaiting at Holloway an opportunity to come forward. Potatoes, therefore, form an exception to what has already been said as to the

generally 'retail' character of home-grown agricultural consignments on British railways.

The practical advantages rendered by this market to the traders are all the greater considering that some of the salesmen will purchase a grower's entire crop of potatoes, extending over many acres, it may be, sending their own people to 'lift' the potatoes and forward them by rail. It is, therefore, of exceptional advantage to such individuals that there should be at the King's Cross terminus a market where they can arrange for the sale of the potatoes direct from the railway wagons, without any necessity for carting them first to a market or warehouse some distance away. The probability is that, if the railway company had not provided the market in question, the dealers would have had to organize one on their own account, being then put, as just indicated, to the further expense of carting thereto. As it is, the Great Northern provide them with every reasonable facility and excellent accommodation on the railway itself, saving them much trouble and expense, and charging them a rental so moderate that no premises of the same dimensions—even if they could by any possibility offer the same conveniences—would be obtained in the neighbourhood at anything like the same amount. On the other hand, the railway company have naturally gained by the increased business secured for their lines, so that, although the dealers must have benefited very substantially from the market during the four decades it has been in operation, I do not suggest that the advantage of the arrangement has been entirely on their side.

To this list of sundry services rendered by railways to the traders may be added the use, if not the abuse, of railway-station cloak-rooms—a condition which has

especially obtained at Glasgow. Shopkeepers, tailors, dressmakers, or others, carrying on business in a wide area around Glasgow, are accustomed to visit that city for the purpose of replenishing their stocks or making their purchases at the large wholesale houses. The goods they buy are very often too heavy for them to carry conveniently themselves, and the parcels are forwarded for them to the cloak-room of the railway-station from which they will return, to await their arrival. The railways so far recognise the practice that they issue to the wholesale houses books of 'shop parcel labels,' each label being in three sections, of which one is attached to the parcel, one is a receipt given to the carter or messenger leaving the parcel at the station, and the third is the ticket which the person claiming the parcel must produce—all three sections, of course, bearing the same number. The charge made is one penny per parcel, with a further charge of one penny per day should the parcel be left beyond the day of deposit.

At one time there was nominally a limit of 28 pounds to the weight of the parcel that could thus be sent to the cloak-room for the penny fee. The weight, however, was not then insisted on, and the general practice was greatly abused, parcels being sent to the cloak-room of such size and weight that the trader who took them by train, as alleged 'passenger's luggage,' might have to be met by a trap or van at the local station, so that he could get them to his shop. In this way the companies lost a good deal of legitimate parcels traffic. Proceedings taken before the Sheriff led to a decision that goods purchased for resale could not be regarded as passenger's luggage. The railways did not take full advantage of this ruling. They contented themselves with limiting the weight per penny ticket to 14 pounds ;

but I need hardly say that some of the Scotch traders regard this as a grievance, and speak of it as still another example of railway companies' 'extortion.'

[NOTE.—In regard to the question of returned empties, dealt with on page 128, my attention has been called, as this book is passing through the press, to what are known as 'vegetable empties' for the Bedfordshire district. These are represented mainly by cabbage-crates, made of wicker-work, and so light in proportion to their size that only about $3\frac{1}{2}$ cwt. can be loaded into a waggon. It is impossible to 'nest' them, on account of their awkward shape. The railway charge for conveying these empties from London to the district in question is 9d. per cwt. To suit the convenience of the local growers, who want their empties back, a waggon is thus sent a distance of 69 miles with a load of cabbage-crates, and all it earns for the railway company is 2s. 6d. or 3s. There is, of course, the question of the charge in the opposite direction, but this represents a low rate for what is still a comparatively light load, even when the waggon is full of cabbages. If it were not for the empties having to be returned, the waggons would not require to go at all to some of the stations in the Bedfordshire district, where the traffic is small, as arrangements could be made to collect the consignments by road-van.]

CHAPTER XI

THE CARRIAGE OF DEAD MEAT

MUCH has been made by the critics of English railway rates of the fact that foreign meat is carried from Liverpool or Birkenhead to London at the rate of 25s. per ton, while Cheshire farmers pay, it is said, at the rate of 40s. per ton for their own consignments to London of English meat. Here, on the face of it, is an exceptionally striking instance of the so-called preferential treatment of the foreigner.

Inquiry into this apparent anomaly soon shows, however, that there are the greatest possible differences between the two branches of trade. The business in foreign meat at Liverpool is one that has attained to enormous proportions. Cattle from across the Atlantic are landed in such numbers on the banks of the Mersey, to be there slaughtered and despatched to English markets, that the amount of money involved in the Liverpool live-cattle trade alone is estimated at from £90,000 to £100,000 a week.

The importations of frozen or chilled meat attain to still larger proportions, and, altogether, the foreign meat handled at Liverpool—now recognised as the great distributing centre for this trade—represents a turnover of about £15,000,000 a year.

One effect of so great a business is to supply very large consignments indeed of dead meat to the railways

having termini in Liverpool or Birkenhead. The Great Western Railway Company get the larger proportion of the traffic to London in regard to the meat from animals killed in the slaughter-houses at Birkenhead, their Smithfield Market depot, combined with their direct route to Birkenhead, giving them an advantage over competing companies, and, in effect, the company run a special meat train from Birkenhead to London practically every day.

The train will consist of about twenty-six waggon, and the average weight of the contents of each waggon (in which the meat, being fresh, is suspended from the roof on hooks, the carrying capacity of the truck being thus limited) is 2 tons 10 cwt. Each train, therefore, represents about 65 tons of dead meat. Not only, too, is the traffic large in itself, but it is regular and certain. The daily meat train from Birkenhead to London has, in fact, been running on the Great Western Railway for a quarter of a century. All the work connected with it has thus long been a matter of routine for those concerned, and the terminal and other arrangements of the company can be planned accordingly.

From Liverpool itself the traffic carried is entirely in regard to imported frozen or chilled meat from North or South America. This frozen or chilled variety can be loaded into the trucks to even better advantage than the fresh-killed foreign meat from Birkenhead. Of the frozen, 4 tons 10 cwt. can be got into a truck, fore and hind quarters being piled on top of one another until the truck will hold no more. Of the chilled, which is more susceptible to damage than the frozen, but less so than the fresh, from 3 tons 5 cwt. to 3 tons 6 cwt. can be loaded into a truck. In this way full train-loads of meat are made up for London, and truck-loads go from Liverpool to almost every part of the country.

Supplies are sent even as far south as Eastbourne, where Liverpool competes keenly with Southampton. 'Ventilated' or 'insulated' waggons (the latter having ice chambers to keep down the temperature) are used, according to distance and season. The bulk of the Liverpool consignments are carried by the London and North-Western Railway, but the Midland and other companies also handle considerable quantities.

The London and North-Western Railway Company run special meat trains from Liverpool to London every day (with rare exceptions), and on Mondays and Thursdays—the heaviest days for this traffic—the company generally run three, and never less than two, of such special trains. As many even as four meat specials have sometimes been sent in a single day. The average number of trucks in one of these London specials is fifteen. Taking the average actual load of frozen or chilled meat at 3 tons 10 cwt. per truck, we get a total train-load of meat for London of $52\frac{1}{2}$ tons. Such a load, at the rate of 25s. per ton, yields charges amounting to £65 12s. 6d. The actual consignments of American meat from Liverpool to London by the London and North-Western Railway during 1904 were close on 45,000 tons.

The rates charged for consignment, not alone to London, but to the various provincial centres which now draw more or less of their imported meat-supplies from Liverpool, and the conditions imposed in each instance, are shown by the table on p. 137.

For the frozen or chilled meat sent to provincial markets from Liverpool the railway rates and charges are thus somewhat higher than those in respect to the consignments to London. One reason for this fact is that the meat for the provinces gives more trouble than that for London. It is, it seems, the provincial rather than

RATES IN OPERATION FOR THE CARRIAGE OF FRESH MEAT FROM LIVERPOOL AND BIRKENHEAD.

To	Rate per Ton.	Conditions.
	s. d.	
London	{ 25 0 40 0	Three-ton loads. } Collected and Less quantities. } delivered.
Birmingham	{ 25 0 30 2	Three-ton loads. } Carted in Bir- Less quantities. } mingham.
Cardiff	{ 30 0 34 2 41 8	Three-ton lots. } Carted in Car- One-ton lots. } diff. Less quantities. }
Manchester	{ 11 8 14 2	Two-ton loads. } Station to Less quantities. } station.
Sheffield	{ 22 6 25 0	Two-ton loads. } Carted in Less quantities. } Sheffield.
Leeds	{ 22 6 24 5	Two tons. } Carted in Less quantities. } Leeds.
Newcastle-on-Tyne...	{ 32 6 35 0	Five tons. } Carted in Less quantities. } Newcastle.
Edinburgh	{ 35 0 45 0	One-ton lots. } Carted in Less quantities. } Edinburgh.
Glasgow	{ 33 4 45 0	One-ton lots, O.R. } Carted in Less quantities. } Glasgow.
Southampton, direct :		
For export	25 0	Any weight. }
For use on board		
ship	32 6	Any weight. } Carted in
For town consump-		
tion	58 9	Any weight. }
Double bookings...	47 6	Three-ton loads. }
Bournemouth, direct	67 0	Any weight. } Carted in
Double bookings...	50 10	Any weight. } Bournemouth.
Brighton, direct ...	65 4	Any weight. }
Double bookings...	{ 59 3 44 3	Any weight. } Carted in Three-ton loads. } Brighton.
Eastbourne, direct ...	67 11	Any weight. }
Double bookings...	{ 62 6 47 6	One-ton lots. } Carted in Three-ton loads. } Eastbourne.

NOTE.—In the case of Southampton, Bournemouth, Brighton, and Eastbourne, senders are allowed a total rebate of 3s. 2d. per ton in lieu of Liverpool and London cartage.

the London markets which get the best qualities, and whereas the consignments for London go direct from steamer to railway waggons, those for the provinces are subjected to a process of very close inspection and selection. One sees, for instance, in the London and North-Western Company's forwarding shed at their Canada Dock station the various consignments for the provinces being carefully sorted out, for particular towns, by the importers or their representatives, the work all being done on the railway company's premises, with a consequent increase of requirements in respect both to accommodation and to labour. Another reason for the higher proportionate rates for the provincial meat is that the railways cannot make up through train-loads, as in the case of London, the average truck-load of frozen or chilled meat from Liverpool to any other destination than London being 1 ton 18 cwt., as against the average (see p. 136) of 3 tons 10 cwt. per truck for London. From London, again, there is a better chance of back-loading (in the way of general merchandise) to Liverpool for the special meat vans used for the traffic.

Under the various circumstances here narrated, it may well pay a railway company to charge only a low rate for such exceptionally large quantities of a particular kind of freight. The profit per ton on the rate so charged may be small, but it is the multiplicity of tons that tells, while the cost of handling and hauling in the case, especially, of a full train-load taken from one point to another, without breaking bulk, is reduced to a minimum.

When, on the other hand, we come to look at the position of our own farmers, we find that they, on their part, can furnish to the railways no such quantities of English meat for transport to London. What they may do is to offer comparatively small and irregular

consignments of meat at various wayside stations. It is, for instance, no unusual thing for a farmer to bring to his local station a few hundredweights of fresh meat for despatch to London, for that meat to have to be put into a waggon by itself (should there be no other consignments on hand suitable for loading with it), and for the waggon to be then specially coupled on to the earliest available train and sent off with all due speed, the produce being perishable, to the Metropolis. Any Cheshire farmer, however, sending off his few hundredweights of meat from a wayside station would not get the benefit even of the aforesaid 40s. rate, that being a rate for 3-ton lots.

But, in point of fact, while the railway companies carry these huge consignments of American meat from Birkenhead and Liverpool to London, one of the most experienced officials on the Great Western Railway assures me that he does not know of any wayside station on his company's system in Cheshire from which fresh meat is consigned to London at all, so that hitherto no rates for meat have been noted on the company's books at those stations. What rates would be charged if the consignments were forthcoming can be judged from the rates per ton in force at two other typical stations on the same company's line for the carriage of fresh meat to London, including delivery :

	Llangollen (202 miles).		Ruabon (197 miles).	
	s.	d.	s.	d.
Under one ton	46	8	45	10
One-ton lots	41	8	40	10
Two-ton lots	37	6	36	8
Three-ton lots	33	4	32	6

These figures are based on a scale adopted by the Great Western Company a few years ago with a view to helping the British farmer. They are regarded as the lowest that could be fixed on a remunerative basis for the quantities stated; but they bring out into strong relief the steady reduction that is made per ton according to the increasing magnitude of the consignments. The charge of 25s. per ton for train-load lots from Birkenhead or Liverpool is, in effect, the ultimate outcome of the same principle, coupled with the fact that the traffic in question is not only large, but regular. It is open to the Cheshire farmers to combine and make up, at least, 1, 2, or 3 ton lots, so as to obtain advantage of the rate applicable to those quantities. If by any possible chance they could go still further, and offer to the railway companies consignments of English meat under exactly the same conditions as the American supplies, the companies would be fully prepared to give them the same rates, and be only too glad to get the business.

The application of the principle here involved—that the exceptional rate for the transport of large quantities of meat is open to anyone who is able to avail himself of it, and is not a preferential rate to foreigners or importers of foreign supplies—is well shown by an incident that occurred in Scotland when the English railways originally conceded their 25s. rate for meat from Liverpool to London. Glasgow sought to obtain a share in a business already assuming considerable proportions, and the Scotch railway companies, which at that time were charging 70s. per ton for carrying dead meat from Glasgow to London, granted a special rate of 45s. per ton for 20-ton lots. The steamship companies trading between American ports and Glasgow also reduced their freights, so as to facilitate this competition of

Glasgow with Liverpool ; and for some years train-loads of American meat came to London from Glasgow as well as from Liverpool. When the Scotch dealers complained (as they speedily did) that they were paying higher rates for Scotch meat than the other dealers were paying for American, the railway companies replied, 'If you will give us 20-ton lots you can have the 20-ton rate.' One of the local dealers did do this. He got together consignments of Scotch meat in 20-ton lots, and he sent them to London at the 45s. rate. But in London he was handicapped by the fact that, unlike the persons who dealt with big quantities of American meat, he had no refrigerating stores where he could keep his supplies when the market was overstocked, and he had to abandon the enterprise. In course of time Glasgow's share in the forwarding of American meat for the London market was diverted to Liverpool ; but the special rate of 45s. per ton for 20-ton lots of fresh meat between Glasgow and London is still on the rate-books of the Caledonian Railway Company. To-day, however, the traffic goes in the contrary direction, for, under the operation of the same 20-ton rate, Glasgow now receives from London large consignments of New Zealand mutton.

One sees, therefore, that dealers in English or Scotch meat can obtain the same advantages as the dealers in American meat in regard to railway rates, provided they fulfil the same conditions. This, for one reason or another, they are unable to do ; and so we come back to the position stated at the outset—that the railway companies carry big and regular consignments of American meat from Liverpool to London at 25s. the ton, while they charge the English farmers for their small and occasional consignments a substantially higher rate per ton. Is it still possible, in the interest of the

home grower, for these rates to be put on a level of greater equality, either by increasing the one or by lowering the others?

With regard to the 25s. rate for the large consignments of American meat from Liverpool, there is no room for doubt that the railway companies do charge what they consider the traffic will stand. They can afford to grant the 25s. rate because the business is so big; but if, on the other hand, they were to charge more, the probable effect would be that American cattle, or American meat, for the London market would no longer be landed at Liverpool at all, but would be consigned direct to London by sea. At present there are certain advantages derived from consigning to Liverpool in preference to London, among them being the fact that there is a better chance of getting return cargoes from the former port. But these advantages might disappear as the result of increasing the cost of rail transit between Liverpool and London, and the trade would then follow the cheaper route. So the American meat would reach London as before, and the position on the Metropolitan market of the Cheshire dealers would remain identically the same.

Thus the 25s. rate for large consignments from Liverpool to London cannot be increased if the business is to be retained. There remains the other alternative—Should the rate imposed for small consignments be reduced?

Naturally the farming interest would say that it should; but the railway interest replies that, considering the amount of trouble involved and the expense incurred in dealing with small occasional consignments, as compared with large and regular quantities, a lower rate for the former would be wholly unremunerative. It is, in fact, argued that instead of the railway companies being

expected to reduce their charges for consignments of a few hundredweights of meat to such a point that any profit thereon would be impossible, the traders should, rather, seek to avail themselves more fully of the opportunities already offered to them in the way of lower rates for larger or grouped consignments.

In spite, however, of all the encouragements that a railway company may offer, the essential differences in bulk between consignments of home and foreign meat stand out in bold relief. The London and South-Western Railway Company have made some very practical efforts to encourage the development of the fresh meat trade in the Western Counties. Adjoining their Barnstaple station, for instance, they erected a slaughter-house to which the local farmers could bring their sheep and lambs, so that the carcasses, when ready, could be lifted straight into the special meat vans awaiting them on adjoining sidings. In these vans the carcasses could be suspended from hooks in such a way that they would not touch one another, and the vans were so ventilated as to insure a perfect current of fresh air throughout the journey. The meat was sent off the same evening to London, where it arrived in time for the next day's market, the charge made by the railway company for carrying the meat 211 miles, under these specially favourable conditions, and delivering it at the market, working out at something less than one farthing per pound. Similar slaughter-houses have been constructed by the same railway company, and similar arrangements are in force, at Bideford, Eggesford, Lapford, Morchard Road, Copplestone, Yeoford, Crediton, Sampford Courtenay, Halwill Junction, and Holsworthy. All these places were regarded as promising meat-producing localities; and it was hoped that, with the opportunities offered to them, the farmers there

would be able to work up a fairly good business with the London markets. But although Barnstaple may produce three waggons of fresh meat a night, the results in regard to the other centres have been distinctly discouraging.

The experiences of the same company in regard to foreign meat are of a very different nature. A single vessel arriving at Southampton will bring enough chilled or frozen beef from America to make up a train of thirty waggons, each waggon holding, on an average, 3 tons; and the train thus put together at Southampton will be taken straight through to London with practically no more trouble to the railway company than that which is involved in supplying the necessary motive power. In the circumstances, the charge per ton for such a train-load may well be less than the charge per ton for the comparatively small lots collected from a variety of points in the Western Counties; but even then the addition to the latter of one farthing per pound on account of railway freight ought not seriously to affect the selling price on the London market of good English meat, especially in competition with chilled American.

The Great Eastern Railway Company, again, have been striving ever since 1876 to develop the traffic in English meat over their lines from the Eastern Counties, but though the amount carried rose to 15,000 tons in 1884, it has now fallen to about 5,000 tons per annum. Their rates for dead meat were reduced in 1876 with a view to developing the business, and two years later they were reduced again, this time by amounts varying from 1s. 8d. to 5s. per ton. Still another reduction was made in December, 1896, and what the rates now stand at is shown by the following examples, the sums stated including collection and delivery:

Miles.	Under One Ton.	One Ton and under Two Tons.	Two Tons and Above.
	Per Ton. s. d.	Per Ton. s. d.	Per Ton. s. d.
50 ...	23 4	20 10	18 4
60 ...	25 10	23 4	20 0
70 ...	27 6	25 0	21 8
80 ...	29 2	26 8	22 6
90 ...	31 8	28 4	24 2
100 ...	32 6	30 0	25 10
120 ...	35 10	32 6	28 4
135 ...	37 6	34 2	29 2

When the services of collection and delivery are performed by consignors and consignees, the company make an allowance of 3s. 4d. per ton in London and 1s. 8d. per ton in the country on the above rates.

The disappointing outcome of these efforts is shown by the following figures, which give the record of dead-meat consignments sent from the Eastern Counties to London by the Great Eastern Railway during the week ending May 21, 1904:

Total weight of meat carried	...	77 tons.
Number of different stations from which sent	... ..	133
Number of trucks into which loaded		282
Number of separate consignments		561
Weight of separate consignments	{	17 lb. to 23 cwt. 3 qrs.
Consignments of 5 cwt. or under		483
Consignments of 20 cwt. or over		3

Recently a trade in dead pigs to London has sprung up at a station on the Great Eastern Railway about 60 miles from the Metropolis. The carcasses are conveyed in trucks which (to the number of twenty) the

railway company have had specially constructed for this class of traffic, each truck being capable of carrying about 4 tons; and the rates charged (exclusive of cartage) are 15s. per ton for 2-ton lots and 17s. 6d. per ton for smaller quantities. During the month of April, 1904, the number of consignments forwarded from the station in question was eighteen, weighing altogether 25 tons 5 cwt. The daily weight varied from 17 cwt. to 3 tons, but the average weight loaded by the senders into any one of those specially-built trucks—capable, as I have said, of holding 4 tons—was only 1 ton 4 cwt., while on no occasion did the weight exceed 1 ton 11 cwt.

It is a very different story from this that we get when we look at the traffic in foreign meat travelling over the same company's lines. Three times a week—Sundays, Tuesdays, and Thursdays—large consignments of meat (principally mutton) are sent from Holland, *viâ* Rotterdam and Parkeston, for the London markets. The quantities thus forwarded may be judged from the fact that on a single Sunday night in October, 1904, the amount handled was 168 tons. At Parkeston it filled up two complete trains, one of twenty-four trucks and the other of thirty-four trucks, the average weight per truck being close on 2 tons 18 cwt.

What one finds, in fact, is that whereas the traffic in meat from the Eastern Counties has fallen off considerably, that in foreign supplies has undergone substantial expansion, and it is, therefore, a matter of special interest to inquire into the circumstances under which the Dutch trade in dead meat is carried on.

The figures already given do not convey a complete idea of the magnitude of the said trade. They refer to the transit over the Great Eastern Company's route; but there are large consignments from Flushing and other Dutch ports besides, the total figures for 1902

and 1903 being as follows: Export of dead meat from Holland, 1902: Rotterdam, 26,485 tons (of 1,000 kilos = 19 cwt. 2 qrs. 21 lb.); Flushing, 17,640 tons; other Dutch ports, 8,143 tons; total, 52,268 tons. 1903: Rotterdam, 19,077 tons; Flushing, 20,950 tons; other Dutch ports, 13,203 tons. Of the 'other Dutch ports,' the principal one is Harlingen, from which a good deal of meat is shipped by direct steamer to the Thames.

Generally speaking, the sheep, pigs, and calves are purchased at the principal cattle markets throughout Holland, consigned alive to the ports, and there slaughtered. Some of the traders send their own representatives to these markets, the commission allowed being about 10d. on each animal purchased. In the Alkmaar, Purmerend, Hoorn and Schagen districts of North Holland the consigning is in the hands of forwarding agents, who charge about 10d. per sheep, 1s. per pig, and 2s. 1d. per calf for delivery at the port. From other market centres the ordinary railway rates apply, those for sheep and pigs ranging from 8d. to 1s. 4d. per head (with higher rates for calves), according to distance and number.

In addition to the traffic in live animals sent to the ports, there is a considerable business done in dead meat consigned direct from the points of despatch for the London market. Meat trains are started from Groningen and Leeuwarden each afternoon at about two o'clock; they are combined into one at Meppel Junction, and this train—picking up further truck-loads of meat at stations between Meppel and Roosendaal—is due to arrive at Flushing by 6 a.m., the meat being there shipped by the day-boat for Queenborough and London. The total quantities carried by this train are estimated at 6,000 tons a year.

Reverting to the traffic *viâ* Rotterdam—with which, in view of the earlier references to the Eastern Counties, we are here especially concerned—I find that the shipping charges at Rotterdam, to be added to the other expenses in Holland already mentioned, come to 4s. 2d. per ton. At Rotterdam the meat is shipped in cases or crates, in which it comes right through to London, the transfer from boat to train at Parkeston thus giving a minimum of trouble. The through freight from Rotterdam to London is 40s. to 45s. per ton. Not only is this a station to station—or, rather, a port to station—rate,—so that it includes neither collection nor delivery,—but it is charged on the gross weight of the consignment, and therefore includes the crate, which represents between 17 and 23 per cent. of the total. When the meat trains from Parkeston arrive in London they are met by the salesmen or their representatives, and the work of unloading from the crates (which are returned to Holland for use over again) and of delivery at the markets is done chiefly by meat carmen, who charge the consignees 7s. 9d. per ton for their services, exclusive of market tolls.

The sum total of these various charges that must be covered in respect to the Dutch meat before there can be any question of profit therefrom on the London market is substantially in excess of the sum total of the charges for the conveyance of English meat from our Eastern Counties, as shown by the table of rates (including, I would remind the reader, collection and delivery) which I have already given. The conclusion is forced upon one that if, as we have seen, the Eastern Counties meat trade has fallen off, while the Dutch traffic has grown to proportions so substantial, the reason is not to be sought in the ordinary representation that ‘the railway rates favour the foreigner.’

Judging from the facts I have stated, it would appear that the reason is to be sought rather in the effective lines on which the Dutch traders have organized their business.

Corresponding to the meat trains from the Mersey, Southampton, or Harwich, are the turkey trains from Newhaven. The London, Brighton, and South Coast Railway Company will, in the Christmas season, bring two boat-loads of foreign turkeys from Dieppe in a single day, the consignments representing a total weight of 500 tons, or somewhere about 112,000 turkeys. The birds are well packed, according to a uniform system, and they can be conveniently transferred at Newhaven from boat to waggon, and made up into complete train-loads. Nothing then remains but to attach a locomotive to the waggons and take them right through to London, which will be reached in a two hours' run.

The rate per ton charged for turkeys carried in this wholesale fashion might well work out at substantially less than the rate per ton for a few score or even a few hundred birds sent as an occasional lot by a country breeder. But here, again, there is evidence that a railway company is willing enough to give practical encouragement to a country breeder who offers a reasonable prospect of good and continuous business. At Heathfield and Uckfield, also on the London, Brighton, and South Coast line, an important enterprise is carried on in the way of fattening poultry for the London market. To aid in the development of this business the Brighton Company made exceptional rates for the transport of dead poultry from the places in question to London, charging 2s. for 1 cwt., but only 15s. for 15 cwt. This rate is, in point of fact, quite as low as that for the train-loads of French turkeys brought from

Newhaven to London, although the quantities carried, while considerable, are substantially smaller.

Again, a single steamer will bring to Harwich bacon from Denmark in quantities that frequently amount to between 300 and 400 tons, sufficient, of course, to make up complete train-loads. The average load per truck varies from 6 tons 13 cwt. to 7 tons 5 cwt.* These trains of Danish bacon will, on their way to London, pass through a district where English bacon for the London market is an almost unknown quantity among local railway consignments. Some years ago an attempt was made to start one bacon factory in Norfolk and another in Suffolk on the Danish model, and the railways gave cordial support to the project, promising special rates for the carriage to London of the consignments in bulk which the factories were expected to supply. But in the result each of the two experiments ended in failure. The bacon-curing companies alleged that they could not get from the farmers a sufficiency of regular quantities of pigs to keep the factories going, while the farmers declared that the companies would not pay them enough for the pigs. Which side was right and which was wrong I will not attempt to decide. The material fact is that for some reason or other both companies collapsed.

Before leaving this subject of the carriage of dead meat, I should like to revert to the points given in the first part of the present chapter, in order to deal with some criticisms which, when originally published in *The Times*, they drew from a correspondent, who signed himself 'Trader.' Alluding, in the first place, to what

* Danish butter does not come forward in such large quantities but there are frequent arrivals of over 150 tons per ship, providing consignments for the Great Eastern Railway at the rate of about 6 tons of butter per truck.

I had said as to the meat trains from Birkenhead to London, and the freight of 25s. per ton charged in respect to them, he complained that the Aberdeen dealers were less favourably treated, saying :

The Scotch beef traffic from Aberdeen to London is as regular as that of the foreign meat from Liverpool. A special meat train leaves Aberdeen for London every evening except Friday; but I have yet to learn that the ordinary rate of 70s. per ton (owner's risk) will be reduced when a single consignment exceeds 3 tons. . . . I made application for a quotation for 3-ton lots of beef, and was told that the ordinary rate of 70s. per ton was the only one obtainable.

The Aberdeen train here referred to is in no way on a par with the meat specials from Birkenhead or Liverpool. The latter are loaded up with meat at the start, and can run right through to their destination; whereas on the so-called 'special meat train' from Aberdeen dead meat constitutes less than half the usual load, the remainder being made up of fish, live stock, and general merchandise for stations situated between Aberdeen and London. Then, although the Scotch traffic may be 'regular,' the actual consignments of Scotch meat from Aberdeen represent only 'small lots' as compared with the big quantities of foreign meat from the Mersey. An analysis of the meat traffic from Aberdeen to London for a fortnight in November and a like period in June shows that, out of 561 consignments during this period of four weeks, there were only six between 2 tons and 3 tons, and there was not one that was over 3 tons. Indeed, out of the total of 561 consignments there were no fewer than 419 that did not exceed a ton.

'Trader's' grievance that the railway companies have refrained from giving Aberdeen the same advantage as Liverpool, by their not quoting a rate for consignments of over 3 tons, is thus seen to have very little substance. What the companies have done is to

quote from Aberdeen a rate which is applicable to all consignments of a minimum weight of 3 cwt., so that 'small' farmers can take advantage of it as well as 'large.' The rate is not, however, 70s. per ton, owner's risk, as 'Trader' alleged, but 67s. 6d.; and this is a reduced exceptional rate, the ordinary class rate from Aberdeen to London for fresh meat being 100s. per ton. Considering the greater trouble involved in collecting, consigning, and delivering so many small consignments from Aberdeen, compared with the train-load lots from Birkenhead or Liverpool, a substantial difference between Aberdeen and Mersey rates would seem to be fully justified. But if we take into consideration the difference in mileage, we get the striking fact that the rate per ton per mile from Aberdeen to London is, after all, identically the same as that from Birkenhead to London at the 25s. rate, as the following table shows :

MEAT, FRESH, TO LONDON.

From	Miles.	Rate per Ton.	Rate per Ton per Mile.
Aberdeen ...	523	67s. 6d. (owner's risk, any quantity above 'smalls')	d. 1'55
Birkenhead ...	194	25s. ('large consignments')	1'55

Then 'Trader' complained of the service, saying that the companies carry the meat from Aberdeen to London 'in forty-two hours, or at the rate of nearly 13 miles an hour.' The forty-two hours is a time limit, within which the railway companies do not hold themselves liable for claims for loss of market or otherwise. In point of fact the train runs from Aberdeen to London, doing its

work by the way, in about twenty-eight hours, or at the average rate of almost 20 miles an hour.

Finally, 'Trader' gave the railway companies the solemn warning that, by refusing to reduce their rate for beef between Aberdeen and London, 'they are driving senders into the hands of the steamship companies.' But statistics show that during the twelve months ending September 30, 1904, the Caledonian and North British Railway Companies between them forwarded about 6,750 tons of fresh meat from Aberdeen to London by rail direct; while the steamship companies, in spite of the lower rates which, with the lesser cost of sea transit, they are naturally able to charge, carried a total of only 1,690 tons.

CHAPTER XII

THE FISH TRAFFIC

A FEW years ago, when the cry of the 'unemployed' was heard in the land, it was represented as a 'monstrous shame' that the starving poor of London could not buy fish at lower prices than they were asked to pay. The fault was attributed to the railway companies in making so-called 'extortionate' charges for the carriage of fish, and in the opinion of various Hyde Park and Trafalgar Square orators the time was ripe for the nationalization of railways.

This question of the railway companies and the fish traffic may be considered from two points of view—(1) whether the companies offer reasonable facilities for the carrying on of the traffic, and (2) whether the charges they make for the services they render are such as materially to affect the selling price of so important an item in our food-supplies. To study the question to the best advantage, one cannot do better than begin with the case of Grimsby, where a greater amount of fish is dealt with every day than at any other fishing port in the world. But what one finds at the very outset, in the case of Grimsby, is that the fish trade there was originally created by the railway interest, it has since been fostered by that interest, and it is to-day mainly indebted to exceptional railway facilities for its prosperity, just as the town and port of Grimsby, as a

whole, are indebted to railway enterprise for development into their present substantial proportions.

The railway that achieved this noteworthy feat was the Manchester, Sheffield, and Lincolnshire, now known as the Great Central; and how, under the leadership of the late Sir Edward Watkin, it brought the fish trade to Grimsby was thus narrated in an article on 'The Port of Grimsby,' published in *Transport*, on October 12, 1894:

About fifty years ago a trawler was fishing a few miles off the Yorkshire coast, when his trawler fell into what became famous afterwards as the silver pit. He drew it up full of soles, with which he proceeded to Hull, and went to look for more. The master of this vessel, and the discoverer of the famous fishing-grounds of the North Sea, and the founder of the East Coast fishing trade, died quite recently in the workhouse at Hull. However, the fame of this catch spread far and wide, and there being no trawlers then working out of the Humber, sundry fishermen from the South Coast settled in Hull and prospered. Their prosperity soon attracted the attention of Sir Edward Watkin, and he tried hard to induce some of them to make their headquarters at Grimsby.

The fishing vessels, never thought much of by the Hull Dock Company, then in the full tide of prosperity, were only allowed a corner of a small dock, and the trade was carried on under circumstances of much difficulty. It did not need much persuasion on the part of the Manchester, Sheffield, and Lincolnshire Company to induce some half-dozen Hull smack-owners to settle in Grimsby. These fishermen were told that no wharfage would be charged on their catches, and that the sole charge for dock dues would be half a crown a vessel. Under these conditions the trade grew and prospered.

So much, in fact, did the trade grow and prosper, thanks mainly to the ever-increasing advantages offered for the carrying of it on, that whereas in 1854 the total amount of fish sent away from Grimsby was only 453 tons, the traffic in 1904 amounted to 164,000 tons. On busy days the fish distributed to all parts of the country by rail from Grimsby will represent a weight of 700 or 800 tons, a record for one day being 1,200 tons. Of separate packages, or individual consignments, of

fish despatched from Grimsby by the Great Central in the course of a year the number is $2\frac{1}{2}$ millions.

Figures such as these do not suggest either that there has been any lack of facilities offered to the traders or that the railway charges have crippled the trade itself in any way. In point of fact, it is difficult to see what more the railway interest could do—in reason—for the welfare of the industry than is done already. The Great Central Railway Company have provided two special fish docks, with an extensive 'market' running parallel with the quayside, and only 8 feet distant from it. In this market 'berths' are allotted each day by the railway company's officials for the display, in the early hours of the morning, of the fish brought in by the boats; and here, too, the packing and preparation of the consignments will go on after the sale of the fish by auction. Then the railway waggons are on the other side of the broad platform which constitutes the market, so that the work of loading them involves the least possible difficulty. Most of the fish is despatched from Grimsby in the afternoon or evening by special fish trains, though considerable quantities are also sent during the earlier part of the day in waggons which are joined on to ordinary passenger trains. The 'specials' leave daily as under:

5.0 p.m.	...	The Western Counties and the Midlands.
5.20 p.m.	...	North-East England and Scotland.
5.30 p.m.	...	London and south of London.
5.40 p.m.	...	Lancashire, Cheshire, the North-West of England, and Scotland.
7.0 p.m.	...	The Midlands.
7.40 p.m.	...	London and south of London.
7.50 p.m.	...	Manchester, Liverpool, etc.
8.5 p.m.	...	The Western Counties and Birmingham.
9.0 p.m.	...	West Riding (Yorks).

The fish specials running to London consist of about twelve vans constructed expressly for this traffic,

and each capable of holding 15 tons. An average train-load of fish will represent about 150 tons. The waggons are of exceptional size, and are suggestive of the American rather than the ordinary English type. Their length is $44\frac{1}{2}$ feet, their width 7 feet, and their height 7 feet. They are well ventilated, and have floors of cement, sloping inward to a central drain. Drawn by exceptionally powerful engines, these fish specials are run at much more than express goods rate; and it is said that they would not be shunted on the journey even for a dining-car express, while it may happen that a main line slow passenger train will be shunted on to a siding to allow a fish train to pass.

The fish special for London leaving Grimsby at 5.30 p.m. reaches Marylebone at 12.20 a.m. Here it will be drawn up at a fish wharf, where a night staff of men will be waiting to unload the waggons and despatch the consignments, by means of drays, either to Billingsgate or to the termini of other railway companies. Begun within twenty minutes of the arrival of the train, this work will have been finished by 3 a.m. Meanwhile, the special leaving Grimsby at 7.40 p.m. will have reached Marylebone at 2.15 a.m., and this will be dealt with in the same way, the consignments for Billingsgate being all delivered there by 5 a.m.

And what is the charge made by the railway company for the express services and the other special advantages thus offered? For the carriage, at owner's risk, from Grimsby to London of common fish (cod, ling, haddock, plaice, halibut, skate, etc.) there is in force an exceptional rate of 1s. 6d. per cwt., or 30s. per ton. This low rate was originally granted to meet the sea competition between Grimsby and London, and to offer special encouragement for the transport of fish by rail instead of water. Considerations of geography

thus enable London fish dealers to gain a slight advantage over those in inland towns; for though the distances from Grimsby to Leeds, Sheffield, and Bradford are less than that to London, the corresponding rate is the same to Leeds as to London, 1d. per cwt. more to Sheffield, and 2d. per cwt. more to Bradford. There is no injustice done to these inland towns, but London benefits; and it is difficult, in any case, to understand how 1s. 6d. per cwt., or 30s. per ton, can be regarded as an excessive charge for the transport of fish a distance of 155 miles, under the special conditions described above. Nor can one see how the railway charges for transport from Grimsby to London should have any practical effect on the retail price of the fish, considering that they work out at only about one-sixth of a penny per pound. The rate for smoked fish or herrings from Grimsby to London is 1s. 8d. per cwt., and that for prime fish (char, grayling, lobsters, mullet, prawns, salmon, soles, turbot, trout, and white-bait) is 2s. 4d. per cwt. There is also an arrangement under which, on payment of £3 10s. (with 10s. more for delivery), one or more fish merchants can hire a tank, which, loaded with fish, is lifted off the truck on arrival in London and sent on a lorry direct to Billingsgate.

Then, a prominent feature of the Grimsby fish trade during the last six years or so has been the sending of small parcels of fish direct from the docks to the consumer. This important business has been fostered by the Great Central Railway Company, which carries such consignments at half parcels rates, and provides special shelves (arranged in a sloping position so as to allow of drainage) in the fish waggons. Of these small parcels of fish despatched by the Great Central from Grimsby to all parts of the country, the average per

day is about 1,200. On busy days the number will run up to 1,700 or 1,800, while in Lent as many as 4,000 have been handled in a single day. The average weight per parcel is 12 pounds, and the average rail charge (including delivery, as a rule) is 8d. The fish merchants engaged in the business (which is still steadily growing) are thus able to supply to householders, schools, or shopkeepers, in all parts of the country, 6 pounds of the cheaper sorts of fish for 2s. (carriage paid), 9 pounds for 2s. 6d., 11 pounds for 3s., 14 pounds for 3s. 6d., and 21 pounds for 5s., with higher terms for superior kinds. As showing the reasonableness of the railway charges for such consignments, it is significant that one firm of fish merchants add to the announcement on their circular that carriage is paid by rail the intimation, 'By parcel post 1d. per pound extra.'

Altogether, therefore, it is clear that, from Grimsby at least, no evidence can be found either of the fish industry having been handicapped by any lack of reasonable facilities and encouragement on the part of the railway interests, or of the price of fish to the consumer having been unduly raised on account of the railway charges. In point of fact, the facilities afforded by the Great Central at Grimsby represent much more than has been already told. There is the question of 'returned empties' as well. These arrive in Grimsby Docks at the rate of from 25,000 to 30,000 a week, or a turnover of about 1,500,000 in the year. Properly speaking, the railway company, which receives only a very small payment for handling returned empties, should be relieved of them at once. But, in practice, the local fish merchants have no accommodation for them, and the railway company is obliged to take charge of the boxes until it suits the convenience of the fish merchants to send for them. This means that an

average of from 50,000 to 60,000 boxes will be on the company's hands at any one time (the number is largely in excess of this average in the herring season), and a considerable space in the area of the docks has to be set apart as depots for empty boxes. A remedy is being sought by encouraging the use of a form of box which, while sufficiently strong for the conveyance of the fish, would cost so much less that there would be no reason for returning it, a new box being used for each fresh consignment.

At Yarmouth the fish traffic is of a seasonal and twofold character. Large quantities of herrings are received there from other fishing ports to be cured in the establishments for which Yarmouth is famous, and still larger quantities, including the local supplies, are distributed from Yarmouth throughout the British Isles. In either case the traders have the option of getting lower rates for large single or combined consignments, different rates being imposed in respect to many different towns, according as the quantities forwarded represent 'small consignments,' '1-ton lots,' or '3-ton lots.' In the case of South Shields, for instance, the freight from Yarmouth is 3s. per cwt. under the first denomination, 2s. 6d. per cwt. under the second, and 2s. per cwt. under the third. From this it would seem that if the Yarmouth traders wish for lower railway rates they can obtain them simply by grouping their consignments, the railway companies delivering at the other end to different consignees, according to instructions. The railways are perfectly willing to fall in with this arrangement, provided that the combined consignments are handed to them in the name of one consignor. The plan in question is worked with good effect in the case of fish sent to the curing establishments of Yarmouth from Scottish and north-eastern

ports, the consignors making up 3-ton lots between them, and so getting the benefit of the lowest rate. There are also a few traders in Yarmouth whose mutual confidence allows of their arranging joint operations in regard to one particular town in the North of England, with the result that they save £1 per ton by forwarding a combined consignment in a 3-ton lot. But, speaking generally, the Yarmouth traders do not consider it practical or expedient to make any such arrangement among themselves as might lead to the names of the customers of any one of them becoming known to their rivals in the business. Such an attitude as this may be warranted by the particular conditions of the trade, and its reasonableness or unreasonableness is a point I need not stay to discuss. But, clearly enough, it prevents the traders from availing themselves of the opportunity which the railway companies are quite willing to give them in the way of securing lower rates—so willing, in fact, that they even allow a sender, or a group of senders acting in combination, to forward part of a 3-ton lot by one train and the remainder later in the day, provided that the second part goes in the same name and by the same route as the first.

The position at Yarmouth is, therefore, that most of the fish despatched thence to all parts of the country goes as small consignments, and though a number of the fish merchants may be forwarding on the same day to the same town, each will prefer to keep his own particular lot distinct, rather than aim at economy through combination. What may further happen, in such a case, is that each trader will stipulate for eventual delivery in the said town by a different railway company, necessitating separate loading by the 'forwarding' company. Thus a consignment of fish

handed to the Great Eastern Railway at Yarmouth for delivery, say, in Manchester (though there are various other places where like conditions prevail) could be marked by the sender to go by any one of four different routes—(1) the London and North-Western; (2) the Great Northern; (3) the Midland; or (4) the Great Central. If the route be left open by the sender, the forwarding company would exercise its own discretion according to the conditions of the day's traffic; but otherwise the goods must go as directed. If, again, 10 cwt. of fresh fish should be received by the forwarding company, it must load the consignment into a waggon by itself (assuming there is nothing else for the same town that could be loaded with it) and despatch it with all due speed, though the waggon would just as well carry $3\frac{1}{2}$ tons.

In the conditions here stated it is conceivable that four traders at Yarmouth might each hand over to the Great Eastern Railway Company a small consignment of between 10 cwt. and 1 ton of fresh fish for delivery in Manchester, and that not only might they refrain from bulking their goods so as to secure the 3-ton rate, but that each might give instructions for eventual delivery by a different company. The forwarding company would then have to place each of these four consignments in a different waggon, which would be transferred in due course to the company stipulated, so that not only would the working expenses be substantially increased, but several days might elapse before the trucks reached Yarmouth again, as returned empties, since the chances would be against any back-loading. In a busy season the risk is thus run at Yarmouth of a shortage of waggons, a larger number of which must be kept on hand than would be necessary if the trade were better organized, while in

any case it is evident the companies must often do a good deal of light running, and stand to get a very poor return on the amount of work actually done for the rates they charge. On the other hand, if some degree of combination were possible on the part of the traders, they might not only gain a direct advantage for themselves, but secure also an indirect advantage by allowing of some fresh arrangement under which the railways concerned would be able to reduce their working expenses on the traffic in question.

Bearing in mind the facts and considerations here set forth, the reader may be left to draw his own conclusions as to whether the rates charged in respect to the Yarmouth traffic are reasonable or not, judging from the following examples :

Between Yarmouth and				Small Con- signments.	One-ton Lots.	Three-ton Lots.
				Per cwt. s. d.	Per cwt. s. d.	Per cwt. s. d.
Thurso	...	...	...	3 9	—	3 0
Glasgow	...	...	...	3 9	—	3 0
Stornoway	...	...	...	3 10	—	3 1
Dundee	...	...	...	3 9	—	3 0
Newcastle	...	...	...	3 0	2 6	2 0
North Shields	...	...	...	3 0	2 6	2 0
South Shields	...	...	...	3 0	2 6	2 0
Grimsby or Hull	...	...	...	1 8	—	1 5
Burnley	...	...	...	2 9	—	2 6
Liverpool	...	...	...	2 9	—	2 6
Plymouth	...	...	...	4 6	4 0	3 6

As regards the Scotch fishing trade, there was a time when certain ports were at a disadvantage as compared with others in reaching the London market, on account of the higher rates charged to them because of their greater distance from the Metropolis. Thus, while from Edinburgh to London (a distance of 394 miles

fish was conveyed by special or passenger train in 3-ton lots at the rate of 60s. the ton, the corresponding rate from Wick to London (a distance of 749 miles) was 65s. the ton. The additional charge of 5s. in respect to the extra distance of 355 miles was reasonable enough from the railway standpoint, but it had the effect of seriously handicapping the fish-dealers of Wick in competing with those of the Edinburgh district on the London market. In fact, no stronger argument could well be found against that theory of equal mileage rates which many people regard as the panacea for railway anomalies than is offered by the past experience of the Scotch fishermen.

To get rid of the serious grievance which thus arose, the railway companies 'grouped' the Scotch fishing ports in such a manner that virtually the same rates to London for the carriage of fish were charged from all of them, irrespective of distance. How this works out is shown by the table on opposite page.

It will be seen from this table that the railway charges for bringing the cheaper kinds of fish even so far as from Wick to London ought not to increase the selling price to the consumer by more than a fraction over $\frac{1}{4}$ d. the pound.

At Aberdeen the members of the fish trade are still dissatisfied with what they regard as the 'high rates' for the consignment of their fish to southern markets. Yet at the Aberdeen Fish Trade Dinner, held in February, 1905, it was admitted by one of the speakers that, in order to encourage the trade, the railway companies had 'given them a special train, which they ran for many years without receiving compensation for the work they were doing,' and that 'they gave the fish buyers advantages which were second to none in the United Kingdom.'

FISH RATES FROM SCOTLAND

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From		Miles.	GOODS TRAIN RATES.		Division 2.		Division 3.		Salmon.
			Fresh Herrings.	Other Fresh Fish, except Salmon.	Char, Grayling, Lobster, Mullet, Oysters, Turbot, Whitebait, Trout, Soles, Prawns.	Haddock, Ling, Cod, Herring, and other Fish not included in Division 2.			
			Owner's Risk.	Owner's Risk.	Owner's Risk.	Owner's Risk.	Owner's Risk.		
			Per ton. s. d.	Per ton. s. d.	Per cwt. s. d.	Per cwt. s. d.	Min.	Per cwt. s. d.	Min.
Aberdeen	...	534	51 8	55 0	5 10	{ 3 9 3 0			

Then, in regard to the Irish fisheries, a vigorous attack was made on the railway companies of Ireland a few years ago on the ground that the fisheries there were neglected, and that thousands of people 'living within a day's journey of the Metropolis of the world' were starving, because the rates charged by the railway companies for the transport of fish were excessive even when they were not actually prohibitory. To these accusations the Irish railway companies published a detailed reply, in which they showed that from the fisheries of Donegal, Clare, Mayo, and Galway the rates to London, by passenger train and fast steamer, for high-priced fish (lobster, oysters, prawns, salmon, soles, trout, turbot, etc.) averaged a trifle over $\frac{1}{2}$ d. per pound, and the rates for all other descriptions of fish averaged a little over $\frac{1}{4}$ d. per pound. They further showed that the turbot then being sold on the Dublin Corporation fish market at 1s. per pound had been conveyed from Achill to Dublin, by passenger train, at the rate of $\frac{1}{4}$ d. per pound; while for carrying from Ballina to Dublin, a distance of 166 miles, the finest lobsters which North Mayo could produce the railways were charging a rate which worked out at only 1d. per lobster, whereas the price that such lobsters readily fetched on the market ranged from 2s. 6d. to 3s. 6d. each. In addition to charging these low rates, the Irish railways were also running special fish trains, in some instances as late as midnight, for the express purpose of helping in the development of the fisheries, their action meeting with the cordial recognition of the Congested Districts Board.

CHAPTER XIII

FRUIT AND VEGETABLES

A GOOD illustration of what sea competition may mean to an English railway is afforded by the experiences of the South-Eastern and Chatham Company in the case of the port of Boulogne. Three times a week a steamer belonging to an English-owned line will leave Boulogne in the evening, bringing fruit and vegetables direct to London, and will arrive in the early hours of the morning in time for the disposal of the produce at Covent Garden Market. The cargo is unloaded on the river almost alongside the London Bridge Station of the South-Eastern and Chatham Company, with whose freight service from Boulogne, via Folkestone, the direct steamers compete. But while the latter have only the ordinary dock or harbour dues to pay at each end—the sea being free to all—the railway company must, in addition to meeting expenses at Boulogne and Folkestone, provide a line of railway which has not only cost a large sum of money to construct, and has heavy working expenses throughout the entire route to meet, but is taxed up to the hilt, as it were, to satisfy the demands of a host of local authorities. These various expenses are avoided by the direct steamers, and it is not surprising, in the circumstances, that the all-sea service from Boulogne should cost from 10s. to 12s. per ton less than the part-sea, part-land service, the time

occupied being about the same. The only possible reason, in fact, why French produce should be sent—at the higher cost—by the latter service in preference to the former is that, when forwarded *viâ* Folkestone, it is more certain to get to Covent Garden in good time for the next day's market than when it goes all the way by sea, and this, of course, is an important consideration in the case of perishable goods.

Apart from the one advantage in respect to service possessed by the English railway company, the only way in which the competition in question could be met would be by reducing the through freight from Boulogne *viâ* Folkestone, or from Calais *viâ* Dover; for the success of the direct steamers from Boulogne to London has inspired a French company to start a similar service for the conveyance of French fruit and vegetables from Calais to London. But here there are other considerations which must be added to what has already been said as to the cost of construction and operation, and also the taxation, of English railways. At the present time the charges made for the carriage of French produce from Boulogne or Calais to London are very little more than they would be for transport from Folkestone in the one case or from Dover in the other; and if any reduction were made in them in order to meet the competition of the all-sea route, they would fall below the corresponding local charges from the ports in question to London.

This is a possibility which would not be permitted. It would be regarded as showing 'preference' to the foreigner. Such a contention seems to assume that fruit and vegetables are grown on the shore at Folkestone and Dover, and that the rates from Boulogne must be governed by the charge for the non-existent

local consignments from the ports in question, for fear of possible injustice to the equally non-existent local growers. There is, of course, the alternative that the railway company should reduce the local rates as well as the through rates, so that there would be no unfavourable comparison between the two. At first sight it might appear that this could be done without injury to the railway if there is really no local fruit or vegetable traffic from the points in question to London. But reductions from Folkestone and Dover would lead to demands for like reductions from Margate, Ramsgate, Deal, and other places, and these, in turn, would be followed by applications in respect to intermediate stations. In this case the company might have to consider whether or not it could really face a reduction of rates all round. The matter would be simplified if the home growers could hand over to the railway companies consignments approximating in bulk to those received from the Continent; but in the circumstances this is obviously out of the question.

The position, therefore, comes to this: that to safeguard the interests of any possible or prospective growers of fruit and vegetables at Folkestone or Dover the railway concerned must not reduce its rates from Boulogne to London to such a point as would enable it to compete successfully with the all-sea route—unless, that is, reductions threatening serious complications are effected in regard to home-grown produce handled under totally different conditions. This position becomes the more striking when we remember that most of the French produce in question reaches us before the home-grown supplies are ready, so that if the former were carried for nothing at all, they would, as a rule, not prejudice the local growers; while the demand for the ‘early’ supplies

from the Continent falls off as soon as the home-grown commodities are ready for the market.*

Even where there is not this difference between early and late produce, the position of the home grower will not necessarily be improved by any course of action forced upon a railway company in the attempt to check foreign imports. This is well shown by the almost classic instance of the Boulogne hops. So far back as 1881 complaints were made that hops were brought from Boulogne to London for 17s. 6d. per ton, and were carried practically past the door of Ashford growers, who were being charged 38s. per ton from that town to London. Here was an apparently gross anomaly, which suggested that a great injustice was being done to the Kent growers. The conditions were not the same in each case, for the rate from Boulogne to London was a station-to-station rate, and did not include collection and delivery and terminal charges, as in the case of the Ashford hops, while, owing to the difference in the packing, the railway company could load into a truck 73 per cent. more of the foreign than of the home-grown hops. But the main reason for the lower charge made to the foreigner was the fact that if the railways here demanded much more for the transport of the French hops than they were actually asking, they would not get the business at all.

Explanations such as these were, however, urged in vain, and 'public opinion' became so strong that the

* A party of Evesham market-gardeners who went over to Paris in January, 1905, to inquire into the system of growing early lettuces under glass, but without artificial heat, as followed in the environs of that city (whence large supplies are sent to London in the winter and early spring), found that there was absolutely no reason why, with the adoption of similar methods of production, the lettuces could not be grown just as well in the moist and sheltered vale of Evesham as around the fortifications of the French capital.

railway company gave way, and increased its rate on French hops to a point that rendered the transport of them over its lines prohibitive. Did the Kent growers benefit? Not in the slightest. As soon as the railway company raised its rates a steamship company plying between Boulogne and London made a successful bid for the traffic, and did such good business with it that other steamship companies began to compete. Then the freights went lower and still lower, so that French or other Continental hops came to the London market in greater quantities than ever, the only difference being that they reached that market by way of the Thames instead of by rail from Folkestone, while the extremely low rates at which they were carried allowed of their competing much more strongly with the home-grown product than was the case under previous conditions. So the change brought about in deference to public opinion has conferred a benefit on the foreign hop-grower and on certain steamship companies; it has deprived an English railway company of traffic which, though not particularly remunerative, might as well have been kept; and it has made the position of the Kentish hop-growers worse, rather than better, than it was before.

The moral is that if the Kentish growers, whether of hops, of fruit, or of vegetables, are to be 'protected' on the London market against the competition of Continental producers, it cannot be done by simply compelling the English railway companies to maintain their rates for the carriage of foreign produce at a certain standard. Such a policy must be ineffectual so long as it is open to steamship companies, working at very much lower cost, to bring the foreign produce to this country and land it at London Bridge for any rates they care to ask. Obviously, the 'protection' of the

Kentish growers could only be made complete either by the Board of Trade controlling steamship rates on the same basis as the control exercised over railway rates, or by the adoption of a recognised national policy in favour of hostile tariffs on foreign produce.

The special significance of this Boulogne traffic is emphasized by the fact that the French railways have of late years organized an elaborate system of exceptional rates to facilitate the putting on to the English market of produce from the remotest corners of France, and that the principal port to which the ramifications of this system lead is the port of Boulogne. Following on some reductions given by the French railways in 1902 in regard to two classes of plums, there came into force on June 5, 1903, a new tariff applying to fruits of all kinds, and also to fresh vegetables, 'for exportation,' carried from stations on the Orleans and Nord systems to Boulogne. From three stations in the most important fruit and vegetable centres in the South of France the old and new rates per ton of 1,000 kilos work out as the table on opposite page shows.

Rates such as these have had great influence in swelling the volume of imports of French fruit and vegetables into this country, though the policy so followed on the part of the French railways has only been successful because in France the business of consigning in bulk has been so well organized that the fruit and vegetables are despatched in those large and regular loads which can naturally be handled with the greatest economy as regards cost of transport.

From Algeria important consignments of early vegetables, grapes, oranges, lemons, etc., are brought to London, viâ Marseilles and Paris, at a through rate of 241 f. 75 c. per 1,000 kilos—say, £9 13s. 4d. per ton. From the same source also the London market receives

To Boulogne from	Fresh Plums per Waggon of 4,000 kilos.	Green Fruits other than Plums.		Fresh Vegetables.	
		Per 50 kilos.	Per Waggon of 4,000 kilos.	Per 50 kilos.	Per Waggon of 2,000 kilos.
Brive (726 kilo- metres).	f. c.	f. c.	f. c.	f. c.	f. c.
Old rates ...	123.40	160.25	160.25	160.25	160.25
New rates ...	99.05	123.40	99.05	99.05	79.55
Reductions per 1,000 kilos ...	24.35	36.85	61.20	61.20	80.70
Agen (914 kilo- metres).					
Old rates ...	143.20	175.00	175.00	175.00	175.00
New rates ...	114.85	143.20	114.85	114.85	92.20
Reductions per 1,000 kilos ...	28.35	31.80	60.15	60.15	82.80
Montauban (925 kilometres).					
Old rates ...	144.50	184.90	184.90	184.90	184.90
New rates ...	115.90	144.50	115.90	116.90	93.00
Reductions per 1,000 kilos ...	28.60	40.40	69.00	69.00	91.90

in the course of the season some 2,000 tons of early potatoes, the through rate for which works out at £2 12s. per ton. With regard to these potatoes especially, it is obvious that, carried so long a distance at so comparatively low a rate, they must necessarily come across the Channel by the cheapest route; and the same is the case in respect to the large supplies of potatoes reaching Boulogne from other Continental sources as well. But the South-Eastern and Chatham Railway Company simply cannot compete for this particular business at all. Even if it could afford to reduce

the rate from Boulogne to London, viâ Folkestone, to the small amount which the traffic alone would 'stand,' it would immediately be accused of granting a 'preferential rate' to the foreigner, although it would be absolutely impossible for a market-gardener to grow new potatoes at Folkestone at that time of the year. Still, the bogey of preferential rates (as it is in this case) must be respected; and, in the result, the direct steamers from Boulogne to London will bring across somewhere about 1,500 tons of potatoes three times a week during the French potato season, while the English railway company will bring none.

Cauliflowers also come through to London from Naples in prodigious quantities in the early part of the year. Beginning in January, from five to ten trucks of these cauliflowers are despatched to London, viâ one of the French ports, every day for a period of two months. The through rate paid is £40 for a 10-ton truck, which takes 600 baskets of 18 cauliflowers each. A considerable proportion of this traffic comes viâ Boulogne, so that here, again, is the same position as before: If, in the interests of that theoretical market-gardener who is assumed to be growing cauliflowers on the Lees at Folkestone between January and March, the railway must not charge a sufficiently low rate to obtain a share in the traffic in question, then the Italian cauliflowers will simply be brought on to London by the direct steamers. Once more, therefore, the foreign produce reaches the London market all the same, and the English agriculturist is not benefited in the slightest degree, though the railway company suffers still further as regards its traffic receipts, and is handicapped, it may be, in the making of possible concessions to traders in other directions.

What, in all these circumstances, actually happens in

regard to the importation of Continental produce via Boulogne and Calais is that the direct steamers get 90 per cent. of the traffic and the railway company gets the remaining 10. But, while the existence of the steamers is practically ignored by the British public, any suspicion that the railway company was attempting to obtain a better share in the business by giving such rates as those by which alone a better share could be secured would immediately be met by a storm of indignant protest.

One further consideration that arises directly out of the facts here stated is this: the average railway critic who is keen on the subject of preferential rates as prejudicing the home grower is apt to look at the question entirely from the point of view of what is paid for the carriage of foreign produce from the coast to London or elsewhere. But as regards actual competition on the market, it is important to consider the sum total of the amount which has been paid for the transport of the foreign produce before it reaches that market. Assuming, for the sake of argument, that the early vegetables from Algeria and the cauliflowers from Naples did compete with similar produce grown in the south-eastern district, we have still to remember that the total freight paid for the Algerian vegetables comes to close on £10 per ton, and that £40 must be cleared on a 10-ton lot of Neapolitan cabbages to cover the cost of transport alone, before there can be any question of profit.

There still remains the question whether the rates that are charged for the transport of fruit and vegetables from inland stations in the south-eastern district to London are in themselves reasonable, apart from the special conditions arising elsewhere as the result, partly of sea competition, and partly of the much greater bulk

of the foreign consignments. Here we come to the fact that one of the commonest complaints made by fruit or vegetable growers in Kent is that, after they have paid commission and railway rates, there is too often little or no margin left for profit; and the inference they wish the public to draw is that this absence of profit is due to excessive railway charges. But the results complained of, however unfortunate in themselves, are not necessarily due to the cause alleged, because it may well happen that the unprofitableness of the business is primarily due to the fact that the market is glutted with, say, fruit at a particular period, and that the prices obtained are so low that under such conditions there really is no possible margin of profit. Railway charges, however, can hardly be fixed on a sliding scale according to the state of the market, and it is obvious that when the amount realized sinks below a certain figure there may well be no benefit for the grower after he has paid expenses.

The point to consider, therefore, is whether (independently of fluctuations of the market and the losses they may involve) the rates charged by the railways are really excessive in regard to the services rendered; and it may be worth while to look at a few examples of existing rates for the carriage of fruit and vegetables. A subsidiary question, from the point of view of the consumer, is whether or not the rates are such as seriously to affect the selling price of the commodity.

From Maidstone to London (Bricklayers' Arms or Blackfriars Station) a consignment of gooseberries, cherries, raspberries, or strawberries weighing over 3 cwt. would be carried at the rate of 14s. 9d. per ton, including delivery to the Covent Garden, Borough, Farringdon, or Spitalfields Markets, but exclusive of collection in the country. The fruit would go by a

special fruit train, and would be taken direct to the market at whatever hour of the night it arrived, a special staff of men being kept on at the goods stations in question for that purpose. This charge of 14s. 9d. per ton works out at about 9d. per cwt., with 3 cwt. as a *minimum*. A sieve of gooseberries will weigh $\frac{1}{2}$ cwt., so that (always subject to the aforesaid *minimum* as to quantity) the railway company will carry a basket containing 56 pounds of gooseberries a distance of 40 miles by express goods train and deliver it at a London market with all possible despatch for 4 $\frac{1}{2}$ d. This sum cannot, surely, be regarded as extortionate, nor should 4 $\frac{1}{2}$ d., spread over 56 pounds, as representing the railway charges, materially affect the selling price of the fruit.

To consign a ton of apples, pears, or gooseberries from Watlington to London (a distance of 38 miles) costs 12s. 2d. This represents 7 $\frac{1}{4}$ d. per 112 pounds. Spread 7 $\frac{1}{4}$ d. over 112 pounds of fruit, and the result per pound is so infinitesimal that it is idle to allege that apples, pears, or gooseberries cannot be sold at a profit in London because the railways charge too much for carrying them. From Adisham cherries can be sent in 3-cwt. lots to London (65 miles) at the rate of 23s. per ton, representing 1s. 1 $\frac{3}{4}$ d. per 112 pound, and plums at the rate of 19s. 7d. per ton, or about 1s. per 112 pounds. From Sittingbourne to London (42 miles) cherries come in 3-cwt. lots at the rate of 18s. 11d. per ton, or 11 $\frac{1}{4}$ d. per 112 pounds, and so on with many other places. For large consignments of fruit or vegetables, or consisting partly of fruit and partly of vegetables, sent from the same station or siding to the same consignee in London, a reduction of 10 per cent. is made when the aggregate weight exceeds 2 tons, and of 15 per cent. when the aggregate weight exceeds 4 tons. Such large consignments are accepted at these reduced rates either from

a single person or from a group of senders acting in combination, provided that in the latter case the produce is all despatched in the name of one firm or individual.

It must further be remembered that the actual traffic in respect to which charges on the scale here set forth are made is a very different business from that of handling such big consignments of foreign produce as those already indicated. Whereas the foreign produce is generally collected by agents operating over a wide area, and sent in waggon-load lots to a small number of agents here, each Kentish grower will consign direct to his own particular customers or agents, despatching his fruit or his vegetables in small frequent lots so as to insure freshness. The arrangement is one that may suit the home producer, but it means that the railway company has to do a great deal of work for its money.

To show the actual working out of these conditions I have obtained the following statement as to 'business done' in the London depots of the South-Eastern and Chatham Railway Company on an average busy day during an average fruit season :

Number of packages handled	...	...	37,957
Total numbers of consignors	...	...	727
Total number of consignees	...	...	206
Total number of trucks used	...	...	226
Van-loads sent out from London depots			
for delivery to the markets	...	...	261
Average weight per consignment	6 cwt. 2 qrs.	14 lb.	

An analysis of the consignments despatched by the Great Eastern Railway from Wisbech—an important centre in the fruit and vegetable districts of Fenland—shows the following results for a single heavy day (July 4, 1904) in the height of the season :

AVERAGE WEIGHT PER CONSIGNMENT 179

Number of packages handled	...	...	20,737
Total weight	...	...	104 tons 16 cwt. 2 qrs.
Consignors	...	...	282
Consignees	...	...	110
Average weight per packet	...	...	11½ lb.
Number of consignments	...	...	341
Average weight per consignment	6 cwt. 0 qr. 16 lb.		

So from two entirely different districts we get the interesting fact that, although the sum total of the fruit traffic handled by the railways may be considerable, the average weight per consignment is only a little over 6 cwt. No better evidence, in fact, could be afforded of the striking difference between the wholesale lots from abroad and the retail lots of the home producer; and if the charge for these average consignments of 6 cwt., carried under the conditions stated, and involving, in the aggregate, a vast amount of clerical as well as other labour, should work out at a higher rate per ton than that made for waggon-load, if not actual train-load, lots from abroad, there need be no cause for surprise. But, with the illustrations already given of the rates actually imposed, the reader can judge for himself whether or not the railways are unreasonable in the return they expect for the work they do, and whether any inability on the part of the home producer to get an adequate profit on the market, or on the part of the consumer to purchase fruit or vegetables at a sufficiently low price, is really due to any excessive demands of the railway companies. Assuming there may be good reason for the complaint so often made that the business does not pay the growers, the question arises whether the causes for this state of things are not to be sought, rather, in other directions.

One especially interesting point to consider is the proportion that the cost of carrying produce by rail

and delivering it at the market bears to the charges of the salesman who disposes of it there.

Potatoes from Black Bank, a typical station in the Fen District, will be brought by rail to London, a distance of 77 miles, and delivered at Covent Garden, the Borough Market, or Spitalfields Market, at an inclusive cost of 7s. 11d. per ton for truck-loads of 5 tons and upwards. For selling the potatoes the salesmen will charge, at Covent Garden, 6s. or 7s. per ton; Borough Market, 6s., 6s. 6d., or 7s. 6d. per ton; Spitalfields, 6s. per ton. The same railway rate applies to carrots and turnips, when bunched in bulk or packed, and the commission charged by the salesmen is, for carrots, 6s. per ton at each market, and for turnips (in bags) 6s. to 7s. per ton at Covent Garden, and 6s. per ton at the Borough Market and Spitalfields.

Of green peas large consignments come in the season from Essex, and Braintree—44½ miles from London—is a station at a fair average distance. The rate for green peas from that place in 2-ton lots, including delivery at the markets, is 6s. 8d. per ton. This represents about 3¾d. per bag, as against 6d. per bag charged by the salesmen.

Taking Maidstone as a good fruit centre, I find that the rates for the carriage of apples, pears, and plums, a distance of 40 miles, and delivery at the London markets, work out thus :

Fruit.	Per Ton.	Per Sieve = 56 lb.	Per ½ Sieve = 28 lb.	Per ¼ Sieve = 14 lb.
Apples	s. d. 12 6	d. 3'21	d. 1'60	d. 0'80
Pears	12 6	3'75	1'87	0'93
Plums	14 9	4'42	2'21	1'10

The commission charged by the salesmen in respect to the same fruit is: Covent Garden, 6d. per bushel (=80 pounds), 3d. per $\frac{1}{2}$ -sieve (=28 pounds), 2d. or 3d. per peck basket (=20 pounds); Borough Market, 6d. per bushel, 3d. per $\frac{1}{2}$ -bushel; Spitalfields, 4d. per bushel.

Broccoli are grown in Cornwall in quantities which suggest that the business has been in no way checked by excessive railway charges. In 1894-1895 the broccoli traffic from West Cornwall stations to London, Birmingham, Manchester, and other populous centres represented a total of 8,700 tons. In 1895-1896 it rose to close on 13,000 tons. In 1899-1900 it stood at 14,770 tons, and the figures advanced still further in 1902-1903 to 17,000 tons, though the bad season of 1903-1904 led to a decline to 14,373 tons. Leaving Penzance early in the afternoon, the broccoli for London are conveyed by express goods trains a distance of 326 miles, and delivered by the railway company to the Metropolitan markets the next morning, at an inclusive rate of 35s. per ton. Reckoning twenty-three crates (of an average weight of 3 quarters 14 pounds) to the ton, the 35s. per ton works out at 1s. 6 $\frac{1}{2}$ d. per crate (equal to from $\frac{1}{4}$ d. to $\frac{1}{2}$ d. per 'head') as the amount which the railway company charges for bringing the broccoli from Penzance and practically putting them in the hands of the salesman, whose commission for disposing of them is 6d. per crate.

Whether or not the commission charged by the salesman is reasonable—as he himself would doubtless have us believe—is a point I will not stay to discuss; but everyone must see that there is a great difference in the nature, and especially in the cost, of the services rendered by railway company and commission agent respectively, although the charges made by the two so nearly approximate, and in some instances are even

less in the case of the transit by rail than in that of sale by commission. There is the further element of uncertainty whether the commission agent does not arrange that the sender shall pay the 'coffee money' and other little items which fall under the head of tips and expenses not formally specified, and also whether the sender—and especially a new or occasional sender—can always depend on receiving from the commission agent, at whose mercy he is placed, the full amount to which he is entitled. These latter are side - issues, covering delicate ground. But, taking the question of services rendered, we find that in order to carry the produce the railway company must, at great expense, provide lines of rails, with stations, depots, and working staff; have locomotives and trucks; pay rates and taxes, not alone on buildings, but also on the amount of traffic passing through each rating area; organize special staffs of servants to receive the produce on arrival; and provide horses and lorries to take the consignments, at any hour of the day or night, from the London depot to a London market, where those horses and lorries may be kept waiting for hours until it suits the convenience of the salesman to accept delivery. The salesman's expenses, on the other hand, consist mainly of office rent (heavy enough, perhaps, especially in London, but not to be compared with the cost of a railway line), market charges, a clerk and helpers, a desk, an auctioneer's hammer, and a black-lead pencil.

What is now happening in the Eastern Counties and Midland districts especially (in both of which vast quantities of fruit and vegetables are grown) is that there is an increasing disposition to avoid London altogether, and to reduce the middleman element to the lowest possible proportions. In each case the bulk of the consignments are sent direct to the large centres

of population in either the Midlands or the North, London being left to draw its home supplies mainly from the South and the West. Under this arrangement better terms are obtained in general, and in the case of an abundant crop especially, any glut on the London market, with a consequent fall in prices all round, is avoided.

In the Evesham district of Worcestershire, where about 9,000 acres are devoted to fruit and vegetable culture, the fact that 'fruit-growing did not pay' was found to be due mainly to defective marketing. There were so many middlemen between grower and consumer that to allow of sufficiently low rates being charged to the latter, the former had often to be content with no profits at all. The grower sold to the local dealer; the local dealer sold to the wholesale dealer in a big town; the wholesale dealer sold to the shopkeeper; and the shopkeeper sold to the householder. This pernicious system is now being combated by an organization of certain of the fruit-growers at Evesham, who formed themselves into an association in the spring of 1904, appointing a manager to take charge of their marketing arrangements for them, whilst they themselves attended to the crops in the fields or orchards. This manager gets, in the first instance, into direct touch, by telephone or telegraph, with the wholesale dealers in large cities wanting large consignments. That saves one middleman—the local agent. Then he sends out weekly circulars to shopkeepers offering direct supplies. That saves two middlemen—the local agent and the wholesale dealer. Finally, he offers to send boxes of fruit or bags of potatoes to householders. That saves three middlemen—the local agent, the wholesale dealer, and the shopkeeper. So the Evesham growers are at last putting their business

on a business footing, by means of an effective organization ; and this, in the circumstances, suggests a much more practical method of procedure than if, adhering to traditional lines, they had contented themselves with simply grumbling at the railways for not reducing to a still lower level such rates and charges as those that have here been indicated. As it is they have made certain of better profits. If, on the other hand, the railways had reduced their rates to a point absolutely unremunerative, it is, in all probability, not the growers themselves who would have benefited thereby. In one way or another the reduction would only have still further swollen the gains of the middleman.

CHAPTER XIV

GENERAL CONTINENTAL CONDITIONS

IN the making of comparisons between British and Continental railway rates the tendency of most critics of the former is to ignore circumstances and conditions that may either account for any difference between the two, or else show that such difference exists to a less extent than is supposed to be the case. It is not enough to say that because a commodity is carried a certain number of miles on the Continent at a certain rate, therefore the British railway companies are to blame because their rates for the transport of the same commodity a similar distance work out (or appear to work out) at so much more.

In the first place, there is the question whether railways in this country, constructed and operated on commercial lines, and receiving no State support, but having, rather, their working expenses substantially swollen by abnormal taxation and costly State requirements, can be expected to concede rates that are no higher than those of Continental countries where the railways are State-owned or State-supported, where manufacturers and growers gain their special concessions at the cost, if necessary, of the general taxpayer, and where the exceptionally low export tariffs, with which our own inland rates are often compared, are, in effect, indirect bounties conceded, or secured,

by the State, as part of the national policy of strictly protective countries, for the purpose of fostering industries and production, irrespective altogether of the profitable operation of the railways.

But, independently of this wide divergence in fundamental principles, the general conditions in regard to actual transport may be altogether unequal. The Continental rate, though apparently lower than the British, may not include various services and advantages covered by the latter, and the addition of which to the former might make the two almost equal—that is to say, if we adopt the logical course of comparing either domestic or export rates on the Continent with the corresponding class of rates in Great Britain. The usual comparisons of exceptional export rates on the Continent with ordinary inland rates here are based on wholly dissimilar conditions.*

In subsequent chapters I propose to offer an outline of such facts in connection with various Continental railway systems as appear to me essential to a right understanding of certain material differences between British and Continental conditions which may well have their reflex action in regard to rates and charges

* I remember having, on one occasion, a conversation with an expert on foreign railway rates, who said to me: 'Tell me what you want to prove, and I will get you figures to prove it. If I am asked to show that Continental rates are lower than British, I take a Continental special export rate—which may also be for a waggon-load lot, and include no services in respect to loading or unloading—I compare it with an ordinary inland rate in Great Britain—which will be for a smaller lot, and include loading, unloading, etc.—and I show that the Continental rate is substantially lower than the British. If I wanted to prove that British railway rates are lower than Continental, I should take an export rate in your country, and compare it with an ordinary domestic rate on the Continent. The difference would then be in favour of the British. To make an absolutely fair comparison, you must compare like with like, and allow for the services that may or may not be included in the rate that is charged.'

in general. In those chapters I shall deal with the subject of State action in the development of Continental railway systems, and with the general basis of operation; but, by way of a general introduction thereto, it may here be pointed out that, in countries like France and Germany, railways have been regarded as part of the political machinery by means of which home industries, and especially exports, were to be encouraged, and discouragement offered to the introduction of commodities that would interfere with local manufacturers or traders. On the one hand, exceptionally low railway rates to a port have assumed the rôle of auxiliary bounties on export; on the other, higher scales of rates on traffic from the same port have aided hostile tariffs in checking the inflow of commodities which the country in question preferred to produce or manufacture herself.

One result of this general policy is seen in the fact that the rates to a particular port, or group of ports, for commodities that are going abroad may be substantially lower than the rates to the same place for the same articles when remaining in the country. The concession of lower rates on goods for export is, of course, a matter that comes within the range of ordinary railway practice, the idea being that merchandise going a long distance will not bear ordinary rates for transport for the land journey, so that if more than a certain charge is made the traffic may be lost. But on the Continent State policy is a much greater factor in this matter than railway practice dictated by purely commercial motives, with the result that the system of exceptional export rates has there undergone extensive development. A few illustrations of the effect of the policy in question may be of interest.

From all the champagne districts in France there are

special tariffs to the various ports for the purpose of encouraging the shipment of French wines to foreign countries. Thus, from Epernay to Boulogne, a distance of 347 kilometres, the rate per 1,000 kilos for wine in cases, in 50-kilo lots, intended for export, is 21f. 60c.; if the wine is going no further than Boulogne the rate is 47f. 80c., a difference of 26f. 20c. But while ready enough to send her productions to other countries, France does not want to give traders in those other countries an opportunity of competing unduly with her own. Consequently, imports may pay on a higher scale than the exports. Spirits, not specified, in casks, can be sent from Paris to Boulogne, for export, at a special *port de mer* rate per 1,000 kilos of 14f. 55c. for lots of 50 kilos; 13f. 80c. for 1-ton lots; and 10f. 55c. per ton for 4-ton lots. For similar consignments imported into Boulogne and going on to Paris the ordinary and comparatively high class-rate for quantities of 50 kilos or under is alone available for less than 4-ton lots, while the special 4-ton rate from Boulogne to Paris is 11f. 55c. above the 4-ton rate in the opposite direction. For linoleum for export the rate per 1,000 kilos from Paris to Boulogne is 14f. 55c. for 50-kilo lots, and 13f. 80c. for 1,000 kilos; whereas the rate from Boulogne to Paris is 23f. for 50 kilos, with no reduction for 1,000 kilos.

The fact that the through rate may be the same in each direction is not a sufficient guide. Wine in cases between London and Paris, viâ Boulogne, will be charged the same amount either way—namely, 54f. for small lots and 47f. 50c. for 1-ton lots; but the proportions received by the English and French companies respectively will vary according to direction, as the following table shows:

—	From Paris to London.				From London to Paris.			
	Small Lots.		One-ton Lots.		Small Lots.		One-ton Lots.	
	f.	c.	f.	c.	f.	c.	f.	c.
English proportion	39	45	34	20	24	0	17	50
French proportion	14	55	13	30	30	0	30	0
Total	54	0	47	50	54	0	47	50

That is to say, the import rate in France is so high, as compared with the export rate, that whilst the through charge is the same in each direction, the South-Eastern and Chatham Railway Company must be satisfied with less money for taking wines and spirits to Boulogne than for bringing them from that port to London. If we take other routes, where the French land journey is shorter and the sea journey longer, the proportions work out more favourably to the English railway companies; but in any case it is really these companies who suffer from the anomaly in question, not the traders.

In some instances the import rate is so high that the traffic becomes prohibitory. Some years ago an effort was made in the interests of the Luton district, then in a depressed condition, to open up a market for English straw plait in Paris. The railway companies here were willing to make concessions, and they tried to arrange a lower through rate between Luton and Paris. But the scheme apparently was not approved by our neighbours, for they would not reduce their proportion of the through rate below a figure that would have yielded to the English railways only between 3s. and 4s. per ton for carrying the straw plait from Luton to Boulogne. The negotiations had, consequently, to be abandoned.

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The difference between export and domestic rates may be further illustrated by the following table in regard to the port of Antwerp :

RATES IN FRANCS PER 1,000 KILOS.

From	To	Goods.	For Export.		Not for Export.	
			Five-ton Lots.	Sixteen-ton Lots.	Five-ton Lots.	Ten-ton Lots.
Bochum ...	Antwerp	{ Iron rails, Iron sheets }	14'41	7'57	17'41	10'94
Essen ...	"	"	13'15	7'17	16'55	10'32
Oberhausen	"	"	12'93	6'92	15'93	9'95
Couillet ...	"	{ Laminated iron (not polished), rails, joists, etc. }	6'47	3'71	6'47	6'47
Ougrée ...	"	"	6'78	3'88	6'78	6'78
Liège ...	"	"	6'65	3'80	6'65	6'65
Seraing ...	"	"	6'80	3'90	6'80	6'80
Couillet ...	"	Iron sheets	8'44	3'71	8'44	8'44
Ougrée ...	"	"	9'06	3'88	9'06	9'06
Liège ...	"	"	8'80	3'80	8'80	3'80
Seraing ...	"	"	9'10	3'90	9'10	9'10

Exceptionally low export rates may have the desired effect in stimulating local industries ; but, looking at the matter from a railway standpoint, export rates on the Continent often enough do little more than cover bare working expenses, while in certain instances there may be an actual loss. The latter fact is borne out by the following paragraph, published in *The Times*, in reference to Russian railway freights :

At a recent meeting of a commission appointed to consider the question of raising the freights on kerosine on the Vladikavkaz and trans-Caucasian railways, the president, M. Ziegler von Schaufhausen, director of the railway department, made statements illustrating the necessity in certain cases of an increase in the freights. The Government railways, he declared, are working at

a loss. In the special cases of the trans-Caucasian Government Railway, the carriage of a load of 1 pood for the distance of a verst costs on the average 1'50 kopeks, while the freight paid amounts to only 1'55 kopeks. If the interest on the money spent on construction be taken into account, it will be evident that the line under the present tariff is working at a loss. With a traffic in kerosine amounting annually to 70,000,000 poods, every extra kopek in the tariff means for the Treasury a difference of 700,000 roubles. The owners of naphtha wells in the Caucasus are vigorously combating the proposal to raise the freights, and urge as one reason for maintaining the present order of things the fact that the appearance in England of kerosine from Texas is increasing the strain of competition.

Where a railway is owned by the State it may be a comparatively easy matter to conduct it on the lines here suggested. If the rates charged are unremunerative, the taxpayer can be called upon to make up the deficiency. The position of a railway company which is bound to secure reasonable success for a commercial enterprise, and has no claim to assistance from the public purse, is altogether different.

Another potent reason for exceptionally low freights on the Continent of Europe is to be found in the rivalry of the ports. In Great Britain there is a certain amount of such rivalry, notwithstanding the system of 'grouping,' but nothing to compare with that which exists on the Continent, where it is a matter not only of the different ports in the same country competing with one another, but of each country competing with other countries. So the special export rates, which, in accordance with State policy, have already been made exceptionally low for the development of home industries, become lower still in order to secure traffic for a home port.

The factors in the situation here alluded to may be illustrated by the following table, which gives the distances in miles of various centres of production in Germany from the seaboard:

		German Ports.				Belgium.	Dutch Ports.	
		Bremen.	Hamburg.	Bremer- hafen.	Stettin.	Ant- werp.	Amster- dam.	Rotter- dam.
A	{ Dortmund	147	217	186	381	164	143	153
	{ Essen ...	158	227	196	403	147	124	133
	{ Solingen	190	259	229	424	144	156	165
	{ Dillingen	359	428	397	566	262	307	304
	{ Oberhausen	159	229	197	412	141	116	125
B	{ Düsseldorf	179	248	217	425	124	136	145
	{ Strasburg	449	490	487	563	304	384	381
	{ Darmstadt	311	351	349	440	278	305	302
C	{ Elberfeld	176	245	214	409	142	152	161
	{ Barmen ...	173	242	211	406	144	154	163
	{ Crefeld ...	184	253	222	435	117	132	130

A = Hardware, iron and steel goods, cutlery, etc.

B = Agricultural and other machinery.

C = Cotton and woollen goods, etc.

From this table we see that in the case of every one of the German manufacturing centres specified the nearest port is either a Belgian or a Dutch one, so that if the railway rates were fixed on a strictly mileage basis the greater proportion of the goods exported from these different localities to Great Britain or other countries beyond the seas should reach the ocean *viâ* Belgium or Holland, instead of *viâ* a German port.

The Belgian and Dutch railways do their best to secure the traffic in question, but their complete success would involve a serious prejudice to Bremen and Hamburg, and it is to the direct interest of Germany to divert the said traffic from its natural channel—geographically speaking—and retain it for German, in preference to foreign, ports, with the further advantage of getting a longer haul for the German railways. To this end the special export rates from the manufacturing centres in question to Bremen, Hamburg, and other grouped ports, are practically based on the correspond-

ing rates from the same places to Antwerp, Amsterdam, or Rotterdam, with but little regard to the question of distance. In these further circumstances, therefore, one can still better understand how the exceptional export rates to German North Sea ports may work out remarkably low—so low, in fact, that in some instances the difference between these and the local rates is as much as 200 per cent.

To the particular conditions here narrated we have no analogy in the British Isles, while, as just shown, even German traders themselves who are not engaged in the export business do not get the benefit of the abnormally low rates that result from the said conditions. Yet in Great Britain it is made a matter of reproach for the railway companies that their own domestic rates 'compare unfavourably' with Continental export rates akin to those conceded under such very special circumstances as those here described.

The mutual competition of Continental ports has, however, much wider ramifications than those already indicated. Austrian produce for shipment is carried across Germany to Hamburg at an even lower rate than is charged by the Prussian railways for German produce, this being done to prevent the traffic going *viâ* Antwerp or Rotterdam. Between Hamburg and Austria, Italy and Switzerland, the rates are governed by those from French ports, just as the rates between French ports and Bâle are governed by those between Antwerp and Bâle. From Italy, for example, large consignments of eggs, poultry, vegetables, and other perishables are imported into England, and there is competition for this traffic not only between the different French routes, but also between France, Holland, Belgium, and Germany. On the mileage rate system the port of Hamburg would have a poor chance

of sharing in the business; but the Prussian State railways give a special rate for provisions, in full waggon-load lots, from Italy to German ports, or even going across Germany to Holland and Belgium, and so hope to secure a portion, at least, of the traffic, instead of letting it all go by the shorter routes *viâ* France.

In facts such as these we see a further reason for the reduction of the Continental transit rates to an irreducible *minimum*. The whole position is full of anomalies—anomalies, indeed, far more striking than any that are to be found in the British Isles, and absolutely inconsistent with the dubious logic of a cast-iron equal mileage rate system, yet based on actual commercial and competitive conditions evolved from a variety of complex circumstances. It is an anomaly that the Prussian railways should carry Manchester twist from Hamburg to Prague at a rate which is 8s. per ton lower than the rate for the substantially shorter distance from Hamburg to Dresden. But they charge this rate in competition with the water transit alike from Hamburg, Rotterdam, and Antwerp to Prague, the probability being that if they asked for more they would lose the traffic altogether. From Hanover to Moscow the rates are the same as from Bramberg to Moscow, although the journey from Hanover is 300 miles longer. But from Hanover merchandise could be sent to Bremen or Hamburg and shipped thence to a Russian port, in which case the Prussian railways would get only a very short haul. More striking still, perhaps, is the fact that a person forwarding goods *viâ* Ostend to Liège will save money by consigning them first to Cologne and then having them sent back from Cologne to Liège. This is because the route from Ostend to Cologne must compete with that from Rotterdam to Cologne.

In criticising Continental conditions, therefore, it would be unfair to attribute the exceptionally low export rates in force there entirely to 'dumping' proclivities, to the exclusion of the further important factor in the situation represented by this competition of the ports, to which must be added, as I shall show in subsequent chapters, the very serious competition of rivers and canals. It is the combination of all these various circumstances that chiefly accounts for the undeniable lowness of many Continental railway rates, by means of which the foreigner is able to send us his big consignments. But every fair-minded man must see that there is no real basis for comparison between Continental exceptional rates of the type here referred to and the ordinary inland rates of British railways. The least that could be done would be to take the special export rates granted by various lines in England, and contrast these with the corresponding rates in vogue on the Continent.

Whether, however, the rates compared be export or domestic rates, it is essential to remember that on the Continent they will not, as a rule, include collection, delivery, etc., whereas in England, except in certain specified instances, they do. On the Continent, if the goods are to be collected or delivered, these services must generally be paid for as extras, and in practice it will be found that, when the cost thereof has been added to the Continental rate, the total will probably approximate very nearly, in most cases, to the corresponding British rate, which includes collection and delivery, loading and unloading, etc.

In this connection I should like to refer to an article which was contributed to *The Monthly Review* in October, 1904, by Mr. F. S. Tatham, member of the Natal Parliament, under the heading, 'How English-

men are Destroying England.' Mr. Tatham asserted, among other things, that the British manufacturer is 'compelled, within the United Kingdom itself, to pay railway charges which are rapidly destroying his chance of successfully competing with foreign rivals,' and he gave a table of comparative British and foreign railway rates in support of his contention. To this article I replied in *The Monthly Review* for January, 1905. One of Mr. Tatham's illustrations was the following: 'Cotton goods: Manchester to London, 36s.; for same distance, German rate, 20s. to 23s.; Belgian, 18s. 1d.; Dutch, 14s. 4d.' But I showed that, although Mr. Tatham had said—

These illustrations have been selected as having reference to the main export trade routes which the British manufacturer is obliged to adopt in regard to his foreign and colonial trade,

he had ignored the fact that for cotton goods from Manchester to London—the rate for which he gave as 36s.—there has been in operation for many years an export rate of 25s. per ton, to enable the port of London to compete with the port of Liverpool, thousands of tons of cotton goods having thus been conveyed from Manchester to London for consignment to other countries. I went on to say:

Another most important point one must bear in mind is that the British rates given by Mr. Tatham include both collection and delivery, whereas the Continental rates would not include either. In the case of cotton goods, Manchester to London, the railway company would send horse, van, and men to fetch the consignments from the warehouses in Manchester, and* they would load the goods into a truck at the Manchester depot. In London they would unload the railway truck, and, in case of all consignments weighing over 300 pounds, deliver the goods alongside the ship in

* I might have added here, on the lines of what I have already stated in the chapter on 'Sundry Services,' 'after giving them free warehouse accommodation on the railway premises, pending shipment, or while the manufacturer was completing the order.'

which they were to be taken abroad. On the Continent, if the usual practice were followed, the railway would simply provide a truck, and haul it from one point to another. The consignor (whether manufacturer, merchant, or forwarding agent) would convey the goods to the station, and load them into the truck at the point of departure, and arrangements would have to be made for unloading and taking them alongside the ship on arrival at the port. If the railway performed these services it would charge extra. Even as it is, and accepting Mr. Tatham's figures, the charge imposed in Germany for hire of truck and haulage comes to 20s. to 23s., as compared with the English charge of 25s. for performing every service necessary in connection with the transport of the cotton goods from warehouse to ship.

There were other of Mr. Tatham's figures which I dealt with in the same manner; but the above example serves my present purpose, as offering a typical illustration of the way in which critics of British and foreign railway rates are apt to fall into the double error, first, of taking a British domestic rate and comparing it with a foreign export rate, and then of ignoring the value of the extra services which are included in the one, but omitted from the other. Everyone must see that when a railway is freed from the necessity of collecting, loading, unloading, delivering, etc., there is a substantial reduction in the net cost of the services rendered, as compared with the extra expenditure entailed when the railway does all these things itself. Belgium, I believe, was the country that set the example of leaving the traders to do their own loading and unloading; but that example has been widely followed, and in many instances loading and unloading by the traders is an indispensable condition to the securing of reduced rates for full truck-loads. France has adopted the practice less than other Continental countries; yet even there more than half the tonnage carried by the railways is loaded into the waggons by the senders, and unloaded from them by the recipients. On some of the French railways, and especially on the

Nord, a still further condition of the low rates granted is that the traders should themselves perform certain clerical work connected with the consignments which would otherwise have to be done by the railway staff.

Reverting to the question of delivery to consignee, I would add that in Continental countries it is a usual practice for merchandise to be addressed to a trader at the railway depot of the town where he carries on business. Theoretically, he knows that the goods have been despatched by the consignor, and is aware of the number of days (according to distance) within which they will reach his town, so that he should send to the depot for them without further trouble. In practice the railway officials forward a post-card (charging him 1½d. for it) intimating that the goods have arrived, and asking if the railway people shall deliver (at his cost), or if he will send for them. It may happen that the trader is not in immediate want of the goods, and has not much accommodation on his own premises. In that case it may be more convenient for him to leave the goods on the hands of the railway officials until he does want them. This practice has been followed to such an extent in Paris that the railways have suffered much inconvenience thereby. The demands on the floor-space of their depots is sometimes abnormal, since the goods cannot always be placed on top of one another, and the depots themselves have to be much larger than would otherwise be necessary—a matter of serious concern, considering the value of land in the heart of Paris. The consignee ought to remove his goods the day following his receipt of the post-card. Alternatively, he is charged warehouse rent at the rate, per 100 kilogrammes (1 cwt. 3 qrs. 24 lb.), of 5c. for each of the first three days, 10c. for the fourth day, 15c. for the fifth day, and 20c. for each succeeding

day; but the trader often finds it much cheaper to pay these charges than to extend his premises, or to arrange for warehouse accommodation elsewhere.

Alike on the Continent and in the United States, the British system of prompt delivery (in most cases) of general goods by the railway company to the consignee (except where actual warehousing is done), depots being cleared out one day ready for the business of the morrow, is regarded with distinct favour. Well satisfied, too, the British trader should be with the advantages conferred on him by the British system of collecting goods for consignment. One of the sights of New York is the mile or more of traders' carts, waggons, and conveyances which every evening will be seen in the streets leading to the goods depot of the New York Central and Hudson River Railroad, waiting their turn to deliver goods for transport, some of them being kept so long that they cannot reach the gates before the comparatively early hour for closing, and have to try again next day.

In making comparisons between British and foreign railway rates it is, therefore, necessary to see whether or not the rates in question each include collection and delivery, and to make an allowance accordingly, in case of need. Another essential point as regards Continental rates is the consideration whether they refer to the 'express' goods service ('Grande Vitesse' or 'Eilgut') or to what may be called the 'ordinary' goods service ('Petite Vitesse' or 'Stückgut'). These distinctions do not obtain in the United Kingdom. Goods, for example, entrusted to the London and North-Western Railway in London in the afternoon of one day for transit to Dublin would, as a matter of course, be handed over to the consignee the following day, in not so many more hours, in fact, than the Post-Office

would take to deliver a letter. All through the United Kingdom thousands of retail traders depend on quick railway service such as this as a means of replenishing their stocks or of meeting the demands of customers.

On the Continent a trader who desired a rail service equally prompt would have to consign by 'Grande Vitesse' or 'Eilgut' (according to the country he was in), and for this he would pay from twice to three times the rate of the ordinary goods service. In regard to the latter the railways are allowed a longer time in which to effect delivery. For the express service the German railways, for instance, have one day for despatch, and one day for each 300 kilometres (186 miles) or portion thereof. For the cheaper service they have two days allowed for despatch, one day for journeys up to 100 kilometres (62 miles), and, in case of longer journeys, one day in addition for each successive 200 kilometres (142 miles) or portion thereof. In effect, therefore, a bale of goods sent from London one day, and delivered at Penzance, Dublin, or Edinburgh the next, might very well be several days on a journey of equal length on the Continent, unless consigned at express goods service rates.

The great advantage secured by the Continental railways from the longer time allowed them for delivery by the 'Petite Vitesse' system (even although, in practice, that time may not be fully taken) is that they can keep consignments back, and have a better chance of making up a truck-load for some particular destination. In this way they effect a saving in working expenses, as compared with the English practice of prompt despatch although the load obtainable per waggon may be of insignificant proportions. From the railway standpoint the Continental system is thus more economical than the British; but there is no room for

doubt as to which offers the greater advantage from the point of view of the trader.

So, in contrasting British and Continental railway rates, one must further consider this important element of time taken for delivery. To compare like with like, the British rate for ordinary merchandise should, in most cases, be set against the corresponding rates, not for 'Petite,' but for 'Grande Vitesse' on the Continent.

The general position is rendered still more complicated by the fact that on the Continent the 5-ton or 10-ton lot plays a much more prominent rôle—especially with the co-operation of the 'forwarding agent'—than is the case here.

The advent of this phase of Continental railway operation goes back to the Franco-German War, and the scene of its development was Alsace-Lorraine. When the Germans took over the working of the railways there, belonging to the Eastern of France Company (from whom they subsequently purchased them), French railway men were no longer available to operate the lines, and the Germans who succeeded them did not speak French, and failed to understand the details of the French goods tariff, which was based mainly on the value of the commodities according to classification. It was necessary to adopt some alternative capable of immediate application, and this was found in the expedient of charging so much per waggon of 5 or 10 tons, irrespective of classification. Those who could not fill a waggon themselves entrusted their goods to a 'forwarding agent,' who made up a 5-ton or 10-ton lot with the consignments he collected from a number of senders, and so filled a waggon—or, at least, paid for a waggon and loaded it up as well as he could.

From Alsace-Lorraine the practice spread to other States in Germany, especially in regard to through traffic. Important modifications were introduced in course of time, but the principle of cheaper rates for 5-ton or 10-ton lots remained, and gave great impetus to the business of the Continental forwarding agents ('spediteurs' or 'groupeurs'), whose activity became particularly keen in Germany.

The collection and grouping of consignments had, of course, long been followed by certain firms in this country, and it was especially in vogue before the railways themselves undertook the duties of common carriers. But on the Continent (where the middleman has remained almost supreme, except in the case of large traders who are able to be independent of him) the essence of the arrangement is not merely the collection and the grouping, but the paying by the forwarding agent for a 5-ton or a 10-ton truck, whether he can fill it or not. Theoretically, by making up a 5-ton or 10-ton lot of parcels and consignments, a forwarding agent can get them through, say from Berlin to Cologne, at a proportionately lower rate than would be paid by each consignor sending separately, and he is, therefore, able to quote to his customers a lower rate than they would pay individually to the railways for single consignments, and still make a profit for himself. Should some of the parcels in the said consignment from Berlin be destined for small towns beyond Cologne, to which no 5-ton lot could be made up, they would go to Cologne at the 5-ton or 10-ton rate, and thence be forwarded at ordinary rates.

In point of fact, however, the forwarding agent is in a position to charge his customers just what he thinks he safely can, short of causing them to go to his very active competitors; so that while those who are shrewd

business people may, possibly, cut the agent's profits to a minimum, the financial benefits derived from the system by the general public (independently of the question of convenience) are less certain. The forwarding agent must keep up an expensive organization apart from that of the railway itself; he must have an agency in all large centres to do the work of loading and unloading, if not also of collecting and delivering; and he must, as already said, pay the railway for a 5-ton or 10-ton truck, whether he can fill it or not. True it is that he may keep back one day's parcels to add to those of the next, or even of succeeding days, in the hope of making up the stipulated quantity—subject only to the danger that if he takes too long over his business the traders may rebel, and patronize someone else. But by the time the forwarding agent has covered his heavy expenses and his possible losses, and secured a reasonable return on his capital, there is probably not much saving in money effected by the average Continental trader, who consigns through a forwarding agent, over the British trader, who consigns direct through a railway company, and is often able to get minimum rates for 2-ton or 4-ton lots, when in Germany the corresponding rates could only be obtained for 5-ton or 10-ton lots. Even if there should be a slight difference in favour of the Continental trader, it ought to be abundantly compensated by the prompter delivery on our side.

In France, where the railways are operated mainly by commercial companies, actuated by commercial instincts, the 'groupeur' is regarded with less favour than is the 'spediteur' in Germany, where the railways are mainly owned and operated by the State. The view taken by the French railways is that in countries governed by *le régime allemand* the public are really

obliged to give their consignments to forwarding agents if they wish to secure any advantages at all from low rates, which are conceded only to waggon-load lots; but the greater part of the profit, it is declared, is absorbed by the separate and distinct machinery set up by the middleman for collection and delivery, while the railway company, which, it is held, could do the work more economically itself, loses a proportion of the benefits it ought to secure. The tendency in France, therefore, as opposed to that in Germany, has been to offer all practicable inducements to the public to deal direct with the railway companies themselves; but even in France certain conditions as to quantity must still be fulfilled, and people are not to expect that a single small consignment will be carried at waggon-load rates. As a rule, a collection of consignments in France, grouped to take advantage of a low rate for a specified quantity, will pay according to the classification of the article which belongs to the highest group; but the Nord and the Est have a tariff giving reduced rates for waggon-load lots irrespective of classification.

It will be found also, from the sketches of various Continental railway systems which follow, that not only these conditions as to quantity, but others besides, are especially applicable in the case of the exceptionally low rates granted for commodities in bulk for export or otherwise, with the result that, while the traders benefit on the one hand, the railways get better paying loads, with reduced liabilities to themselves. A consideration of all these things, together with the political influences at work, and more especially the circumstances under which the State-owned or the State-aided railway systems of the Continent have been created and operated, is, I submit, essential to any intelligent and impartial comparison of those systems with our own.

CHAPTER XV

THE RAILWAYS OF FRANCE

ON the other side of the Channel, as on this, the earliest of all among the railway pioneers seem to have regarded the new mode of traction simply as a means of establishing improved communication on rails (with horse-power) between centres of production and the waterways. In France these ideas covered the period from 1823 to 1832, when the locomotive was introduced. At first the concessions given for the lines to be made were without limit in regard to duration, and the general arrangements were so primitive that merchandise and minerals were all included in one class, there being only a single tariff.

With 1833 the fact began to be recognised that railways might be employed for the conveyance of passengers as well as goods; but the rate of progress was so slow that whereas by 1836 there were 2,000 miles of railway in operation in Great Britain, in France there were only a few short lines. Financiers, great and small, in the latter country were reluctant to invest their money in a new form of locomotion, the results of which seemed rather doubtful; while in the Parliamentary sessions of 1835 and 1836 there were vigorous debates as to whether the work of railway construction should be carried on by the Government or left to private enterprise. Each course had its own

particular supporters, and the Chambers showed their impartiality by first rejecting schemes proposed by companies, and then throwing out others brought forward by the Government. Even some of the leading men in the State had no great faith in railways. M. Thiers said concerning one of the earliest projects: 'Il faut donner ça à Paris, comme un joujou, mais ça ne transportera jamais un voyageur, ni un colis.'

In 1838 the Government sought approval for a Bill under which they proposed to construct seven great trunk lines to be operated by the State; but the Chambers refused their assent. Thereupon an Englishman, Mr. (afterwards Sir) Edward Blount, who had established himself in Paris as a banker, made an offer to M. Dufaure, then Minister of Public Works, to raise the necessary funds in England for the construction of a line from Paris to Rouen, if the Government would grant him a concession.

The Minister replied that if Mr. Blount would raise 15,000,000 francs (£600,000) in England, and a like amount in France, the Government would advance him another 15,000,000 francs, at 3 per cent. per annum. Mr. Blount formed a company, raised the amounts stated, and was granted a concession of the proposed line in July, 1840. Not only was one-third of the capital thus provided from England, but the contract for constructing the line was secured by the late Thomas Brassey, who took over with him to France a large body of British navvies to help in the work. An Englishman, Mr. Buddicom, was chosen as locomotive superintendent, and fifty English engine-drivers, employed by the London and North-Western Railway Company at Liverpool, were induced to go to France to inaugurate the new line, which, opened in 1843,

was to become the nucleus of the now extensive Ouest system.*

In this way the first great incentive to the construction of French railways was really given by Englishmen. The example thus set led to the formation of various other companies in France; but in 1839 the first of a series of financial crises seriously affecting railway development in that country reduced most of the companies to such a position that they could not raise the further capital necessary for their schemes. The political situation was not favourable to commercial speculation, and this fact increased the timidity, especially of those representatives of *la petite épargne* who constitute the 'backbone' of French finance.

Among the companies thus affected was one which had obtained a concession for a line between Paris and Orleans. The Government were anxious that this line should be constructed, and, in the circumstances, they resorted to that principle of a 'guarantee of interest' which, in later years, was to become the recognised basis of railway operation in France. The company in question was, in effect, guaranteed by the Government for a stated period the payment of interest on its capital, the sums so provided being advances at 4 per cent., which were to be refunded when the revenue of the company allowed.

* Sir Edward Blount (whose death at the age of ninety-six occurred on March 15, 1905) was chairman of the Western of France Company for thirty years. He retired from the position in 1894, owing to an active campaign being then waged in Paris against the idea of so important a post on a State-aided railway, which might be concerned in the question of national defence, being held by a foreigner at a time of political tension. In the meanwhile Sir Edward Blount had taken an active part in the financing and management of other lines of railway in France and elsewhere on the Continent. Though a banker by profession, he qualified as a practical railway man by having four months' experience in England as an engine-driver on the London and North-Western Railway.

In the case of several other companies substantial loans were granted by the Government; but certain unpleasant experiences served to increase still further the timidity of the small investor, and the Government concluded that they would have to co-operate on a much more active scale in order to secure for the railway enterprise in general a greater degree of public confidence. Hence the law of 1842, under which the *St  te* undertook to carry out itself the larger part of the work.

Provision was made for the construction of a network of nine lines of railway—those lines, in fact, which constitute to-day the main arteries of the railway system in France. The State, in the first place, was to acquire the necessary lands. It was assumed that the localities interested would be willing to contribute towards the cost of these lands to the extent of two-thirds; but so many difficulties arose, owing to the exactions made by the localities in return, that in 1845 the requirement thus imposed on them was repealed. Then the State was to execute all the earthworks, and build the bridges, stations, etc., while the companies to whom the concessions were granted were to lay rails and ballast, provide rolling stock, and operate the lines for a term of years. The railways would then revert to the State, the rolling stock being paid for at a valuation. It was calculated that the amount the State would require to spend would be £6,000 per kilometre, as against £5,000 per kilometre to be provided by private enterprise. A vote equal to £5,000,000 was made to enable the Government to start on the carrying out of this programme, and the law of 1842 became recognised as the fundamental basis of the French railway system in general.

The effect of the policy thus adopted was to bring

about, for the time being, a complete restoration of public confidence in railway expansion. Thirty or more companies were started, and not only was abundant capital now at length forthcoming, but the competition became so keen that some of the companies took over concessions for as short a term as twenty-seven years. Altogether, about 2,500 miles of new lines were authorized.

Excessive speculation, coupled with the projection of various schemes of a more or less impracticable type, brought about the inevitable reaction. Panic followed inflation, the value of shares depreciated rapidly, works undertaken were stopped because the companies concerned in them could raise no more money, and in 1847 the efforts alike of the Government and of the Chambers to secure the provision of an adequate railway system in France seemed to be completely paralyzed.

To meet the situation thus created the Government prolonged to fifty years the concessions of certain companies which had accepted short periods ranging up to thirty-four years only; they allowed longer time for construction; they granted increased facilities generally; they gave financial help, where such a course was warranted, and they annulled various obligations which were regarded as beyond the hope of fulfilment. A certain slow progress followed, but it was checked by the Revolution of 1848, which aggravated the previous crisis, and prevented the companies from recovering.

The Republican Government at first entertained the idea of taking over the whole of the railways, and operating them as a State system. The case certainly seemed to be one for a drastic remedy of some kind. The needs of the country were growing rapidly; but whereas Great Britain had by that time close on 7,000 miles of railway, and Germany nearly 4,000, France had

fewer than 2,500 miles. The idea of State purchase was abandoned, but further help was given to some of the companies in the way either of actual financial assistance or by relieving them of certain obligations, while in several instances the lines were sequestered by the State. The total expenditure on the railways up to the end of 1851 had been £60,000,000, of which amount the State had provided two-fifths.

With the advent of Napoleon III. there came for the railway system in France a period of rapid development. At that time only nine of the companies had concessions for as long a period as ninety-nine years. This term was now made to apply to nearly all of them. The prolongation bettered their credit, improved their finances by relieving their sinking funds, and gave them a longer period for recoupment after their traffic had attained to good proportions.

Most of the existing lines, constructed or operated by about thirty different companies, had been built in a fragmentary fashion, and were carried on more or less independently one of another. They lacked uniformity in regard both to service and to tariffs, so that the former had become a source of much inconvenience, and the latter, increased by the heavy costs of administration, were almost prohibitive. To obviate these evils a policy of amalgamation was inaugurated. The multiplicity of small companies disappeared between 1852 and 1857, and in their place arose six great companies, known as the Nord, the Est, the Ouest, the Paris-Lyon-Méditerranée, the Orléans, and the Midi. Each of these had its recognised sphere of operation, and the prospect was afforded of greater unity and decreased cost of operation. The concessions granted to all six companies were for terms of ninety-nine years from the date of formation. They will thus lapse in different

years between 1950 and 1960—namely, the Nord in 1950, the Est in 1954, the Ouest in 1956, the P.-L.-M. in 1958, the Orléans in 1956, and the Midi in 1960.

In return for the advantages they had secured as the result of this amalgamation policy, the companies which thus controlled the main arteries of railway traffic in France were required by the Government to undertake, without any subvention or guarantee of interest, the construction of some 1,500 miles of 'secondary' lines, for which there was then a great demand.

This obligation involved the companies in a very serious financial responsibility. In the six years ending 1857 they had spent two milliards of francs—say £80,000,000. They now found themselves called upon to raise another two milliards in order to complete works already undertaken, and to acquit themselves of the further responsibilities they had accepted at the hands of the Government. But when the French investors were once more invited to produce their savings they displayed a distinct unwillingness so to do. In the first place, they were scared at the idea of £160,000,000 being spent in the course of a few years on railways, the return from which was still by no means assured; and, in the next place, they thought that the losses on the new secondary lines would swallow up the profits on the old main lines. So another crisis set in, railway shares depreciated rapidly, and the companies once more found it impossible to secure the new capital they wanted.

The Government were asked to revise—or, in effect, rescind—the requirements imposed on the companies as to the construction of new lines. Reluctant to adopt a course which would sacrifice the interests of a number of districts assumed to be greatly in need of railways, the Government, as an alternative, resorted in 1859 to

the 'guarantee of interest' principle, which thenceforward was to represent the financial basis of French railway enterprise in general, the Nord being the only one of the large companies that has not taken advantage of it. A most valuable moral support was thus obtained, through the operation of the guarantee, without involving the State in any immediate great outlay.

On the theory that the crisis which had arisen was due primarily to the further obligations imposed on the companies, the 'new' lines were separated from the 'old,' and at first the guarantee of interest was accorded to the former as distinct from the latter, though this arrangement was subsequently modified. The fundamental aims were—(1) to restore public confidence in the stability of the companies, and (2) to insure the due carrying out of the projected extensions. In regard, therefore, to the new lines, the State guaranteed the payment of interest on the capital expended when the receipts were insufficient for the purpose.

As concerned the old lines, a net revenue was reserved to the companies until they had set aside sufficient to pay interest on bonds, and also a dividend on ordinary shares somewhat less than the amount previously paid, the surplus being allotted to the new lines in order to diminish the amounts required to make up the revenue guaranteed.

The sums provided by the State were to be, not subventions, but advances, on which the companies would pay interest at the rate of 4 per cent. When the net product of the old and new systems exceeded alike the amount of revenue reserved for the old lines and the amount of interest guaranteed for the new ones, the difference was to be paid annually to the State until the sum total of the advances to each company, including interest, had been cleared off. On the expiration of the

ninety-nine years' concessions, the State will take over the lines without compensating the companies, but it is bound to purchase from them their rolling stock, machinery, etc., paying such sum as may be fixed by, if necessary, expert valuers. If the companies, or any of them, should then still be indebted to the Government in respect to the advances which have been made, the amount of such debt is to be regarded as a set-off to the sum the State will pay to the company for the rolling stock, which thus represents the security of the State for the advances made. If, on the other hand, a company should extinguish its debt towards the State before the expiration of its concession, any profits after the payment of a certain reserved dividend are to be divided between the companies and the State. It was expected in 1859 that none of the companies would require advances later than the year 1884, by which time their position would—as was expected—be so far improved that they would begin their repayments, in the hope of eventually recovering the 'freedom of their dividend.'

Under the operation of these arrangements the confidence of investors was so far restored that the companies no longer found any difficulty in raising the capital they required to complete the obligations they had undertaken. But from all quarters of France there came a demand for more, and still more, railways. Treaties of commerce were giving a great impetus to trade and manufacturers, and new railways were represented as the crying want of the day. Main arteries of traffic had been provided for, but there were large tracts of country without any rail communication, and much pressure was brought to bear on the Government by these particular regions. The companies, however, which had already incurred heavy financial responsi-

bilities towards the State, and were trusting that some day or other they would be able to pay off their debts, were reluctant to run the risk of postponing the realization of that hope by undertaking railway construction and operation in difficult or costly places, or in districts not likely to produce remunerative traffic.

From this point of view, therefore, the guarantee of interest was not in itself sufficient, and the Government had to take the further step of granting direct subventions as a means of securing the provision of further secondary lines and lines of only local interest. In the first place, the Government entered into fresh conventions with the existing companies for the building of these new lines, towards the cost of which subventions representing a portion of the expense (independently, altogether, of any guarantee of interest) were made to the extent of £9,196,000. Then, in 1863-1864, the Government made further grants to a number of new and smaller companies for the construction and operation of other secondary lines. Power was also given to the departments and communes to encourage the construction of local lines by contributing from a quarter to half of the necessary capital. Finally, for districts where railways were needed, but where no private company was willing to run the risk of providing them, the Government resolved to undertake the entire construction of the lines.

The departments and communes responded very readily to the policy enunciated by the Government, while new companies of the 'small' type became so active that in 1875 the concessions which had been made in respect to secondary and local lines represented a total of 2,700 miles. By the end of that year, however, it was found that the movement had been pushed forward with much more zeal than discretion.

The activity of the Conseils Généraux especially had favoured the creation of a number of new companies which possessed neither the means nor the credit necessary to enable them to carry out the enterprises they had started. Excessive hopes of future prospects had also again led to much foolish speculation, so that the easily-scared small capitalist was once more reluctant to produce his savings. Most of the 'secondary' and local lines were already in difficulties, and had little or no hope, even in the best possible circumstances, of getting sufficient revenue to cover expenses. Some there were which could not complete their lines, and others, though they had finished their lines, could not operate them.

Instead, therefore, of the State having solved the railway problem, it had to start afresh with the task, meeting a fresh series of worries and responsibilities, as troublesome and as heavy as any that had gone before. In 1878, after prolonged debates in the Chambers, the Government were authorized to purchase 1,600 miles of the secondary or local railways, at a cost of over £11,000,000, and to expend on their completion a further sum of £9,000,000. A number of lines which, properly speaking, should have acted as feeders to the trunk lines, had been worked in competition with them, and had become hopeless failures. By arrangement between the Government and the great companies, the latter incorporated these particular lines in their own system. The remainder (mostly in the West or South-West) were to constitute a separate system of State railways, to be operated by a Conseil d'Administration appointed by the Government, and subject to the supreme control of the Minister of Public Works.*

* Extended at various times since the date here referred to, the Chemins de Fer de l'État to-day comprise a total of 1,800 miles,

Meanwhile the old grievance continued—that the railway system as a whole was not being developed to the extent and in the manner that the welfare of the country and the interests of the people required. Certain it was that at this date France had only 13,000 miles of railway, as against 18,000 in Germany. The Government now resolved to complete, at one bold stroke, the network of 'lines of public interest,' and M. de Freycinet drew up a most ambitious programme,

and serve the district between Paris, Chartres, Saumur, Nantes, La Rochelle, and Bordeaux. The system fulfils what is, in certain respects, a somewhat peculiar rôle among the railways of France. The Government cannot compel the ordinary companies to introduce on their lines a variety of changes or improvements which, however desirable, might increase their expenditure and reduce the value of their concessions. What the Government do in these circumstances is to make the said changes on the Chemins de Fer de l'État, and so set before the companies an object-lesson which they may be expected to follow, especially when the action taken is endorsed by public opinion. Thus the State system claims to have been the first to adopt corridor carriages in France. On the other hand, the concession by the État of higher wages, with the same or fewer hours, than those on the companies' systems, was regarded in some quarters as inspired by political considerations, while the comfortable dormitories, with hot and cold water, set up at junctions and large stations on the État system have been satirized as 'engine-drivers' boudoirs.' At one time the exceptionally low rates granted on the État system were a source of grievance to the companies, who, again, have never wearied of declaring that the high proportion of working expenses to actual earnings on the État system—attributed by the officials thereof to the comparatively unprofitable character of the traffic in the district served—is really a proof of the greater cost of State as compared with company management. An especially interesting fact in connection with the Chemins de Fer de l'État is that the large station at Courtalain Junction (between Chartres and Saumur), and also the lines in each direction for a distance of about 40 miles, constitute a railway training-school for soldiers. Within the radius mentioned every operation connected with the running of the trains and the control of the lines and stations is performed by troops, a regular succession of whom undergo there a three months' training, so that in the event of war or other contingencies the French army should in the course of time have a considerable body of men possessing more or less experience in the art of working a railway.

which was eventually adopted in 1879. Independently of improvements in the waterways, it included the construction of 12,000 kilometres (7,452 miles) of new lines within the zones of the six great companies, together with the completion of 6,000 kilometres (3,726 miles) already conceded—a total of 11,178 miles of new railway. The cost was estimated at three and a half milliards of francs (£140,000,000), and the work was to be done in from ten to twelve years, a sum of about £13,000,000 being raised and expended by the State each year.

In accordance with this programme a start was made with the construction of some 180 new lines, £11,000,000 being spent in 1880, £13,000,000 in 1881, and £15,000,000 in 1882. In each of these years about 600 miles of line were opened. At the same time, also, the State continued its policy of buying up local lines that had become bankrupt.

A period of exceptional prosperity developed, in 1882, into still another financial crisis, but this time the relations between the Government and the railway companies were reversed. It was now the former who had to ask the latter to help them out of a difficulty. Encouraged by some favourable surpluses in the national Budget, the Government had entered upon their big railway scheme with full confidence in their ability to carry it through. While also incurring a greatly increased expenditure in this direction, they even lowered their revenue by conceding some substantial reductions in taxation. With the advent of depressed financial conditions they now found themselves in a dilemma.

The railway programme was not popular among investors, either great or small. Land and labour were both costing so much more than had been calculated on that the total expenditure on the lines was likely to

be nearer four or five milliards of francs (£160,000,000 or £200,000,000) than the three and a half milliards of the original estimate. Then the lines undertaken were mostly short branch lines, independent of one another, and designed for scattered localities in practically every quarter and corner of France ; while still another factor in the situation was that the Government, with a desire, perhaps, to gratify as many constituencies as possible, had begun a considerable number of the lines at one and the same time, the localities taken first being those which could exercise the greatest degree of political pressure, rather than those most in need of railways or likely to furnish the largest amount of fresh traffic. As they were finished, the lines were either operated by the State itself or transferred under provisional agreements to the great companies. It was a foregone conclusion that most of them could not possibly be made to pay, and that the national Budget would have to support the deficits. The Government argued, however, that all would be well, because the savings which travellers and traders would effect through the advent of the new lines would more than compensate for any loss that might fall on the State.

Such was the position of affairs when the financial troubles of 1882 occurred. Whatever merit there may have been in their railway programme, the Government found a difficulty in raising more funds with which to complete the works undertaken, and, as already indicated, it now became their turn to appeal to the companies. These had, in fact, experienced a considerable improvement in their position. Down to 1879 four of them had had recourse to the guarantee of interest, to the extent of, altogether, from £1,200,000 to £2,000,000 a year. But the substantial augmentation in railway receipts between 1879 and 1882 had enabled

three of the four to begin repaying the advances, and it was then only the Ouest which continued to draw upon the State. The Government were thus encouraged to make, in 1883, fresh conventions with the companies, under which the latter would relieve them of the burden of carrying out the remainder of the 1879 programme.

As the 1883 conventions represent the present-day charters of the French railway companies, their leading points may here be mentioned :

(a) The companies accepted the concession of a large number of new lines, either already in operation or in course of construction, representing a total of about 7,400 miles of railway, together with 1,200 miles of lines of either 'general' or 'local' interest already conceded to secondary companies, or, provisionally, to the six great companies themselves.

(b) The companies undertook to furnish rolling stock and mechanical appliances at the railway-stations, and to contribute to the cost of construction a proportion fixed (generally speaking) at 25,000 francs per kilometre, in the case of lines of normal gauge. The remainder of the cost of construction was to be defrayed by the State ; but, in order to avoid any considerable interference with the national finances, the companies themselves were to raise the money, the State refunding such sums to the companies (independently of the 'guarantee' accounts), with interest thereon, by means of annuities spread over a specified period. (Hitherto it had been the State whose contribution had been fixed, the companies providing the balance.)

(c) An exchange of lines between the Chemins de Fer de l'État and the Orléans improved the position of the former, made its situation more compact, and brought to an end the friction and the rivalry that had previously existed, leading to what was little short of a

'war of tariffs.' The État also obtained the right to run (at specially advantageous terms) over the lines of the Ouest Company between Chartres and Paris.

(d) In regard to the guarantee of interest, the distinction between old and new lines was abolished, receipts and expenditure from each being brought into one account. From this the charges for interest on loans, the redemption of mortgages, and the payment of a certain dividend ('dividende garanti') would be met, the State, under its guarantee, advancing the difference when the revenue was inadequate for the purpose. Should the revenue more than suffice to meet these charges, the excess was to be applied, in the first instance, to repaying the advances made by the State, with the simple interest thereon at 4 per cent. On the extinction of the debt the excess might be devoted to the increase of the dividend until a certain figure ('dividende réservé') had been reached, after which the balance was to be divided between the State and the company, the former taking two-thirds and the latter one-third.

(e) Companies indebted to the State in respect to advances for guarantee of interest could reduce the sum due from them by undertaking works of construction for which, under the terms of the conventions, the State would otherwise have to provide. (In this way the Ouest reduced its debt of £9,600,000 to £6,400,000, whilst the Est wiped off a debt of £6,000,000, and the Orléans one of £8,200,000.)

The companies further undertook to simplify their tariffs, and to make concessions to the public in the matter of rates, charges, and general facilities.*

* The Ouest especially agreed to run workmen's trains under conditions which have since become extremely onerous, and have helped materially to maintain the company's record as the poorest of the six, and the one that has been compelled to make the greatest and most persistent calls on the State funds.

By means of these conventions the Government considerably improved the awkward position into which they had been led by their railway policy, and there was, at the same time, a general expectation that the companies would not have to resort further to the guarantee of their interest. But the depression which set in with the year 1883, greatly aggravated as it was by the phylloxera visitation, brought about a serious decline in the railway returns, so that in 1884, in spite of economies effected in their working expenses, all the companies except the Nord had to have recourse to the guarantee of interest, the amount advanced in that year being £1,720,000. In succeeding years the demands made on the State ranged between £2,000,000 and £3,000,000. At the same time the State was feeling the burden of having to pay off large sums each year in the form of annuities on account of the new works, the execution of which was, accordingly, proceeded with less rapidly than had been contemplated. In 1893 the requirements of the companies in respect to guarantee of interest amounted to £4,000,000, owing to the considerable increase in the cost of railway operation (due in part to the rise in the price of coal and in part to the exactions of the authorities). An energetic effort was made to reduce so formidable a charge as this upon the national Exchequer, and such further economies were brought about by the companies that in 1896 the sums they asked for as guarantee of interest amounted to only £1,400,000, while the Paris-Lyon-Méditerranée, which had made its first appeal to the guarantee in 1883, and had incurred a debt of £6,000,000, repaid £240,000. In 1897 the Ouest, the Est, and the Midi asked between them for £880,000. In 1898 the P.-L.-M. liquidated its liabilities by undertaking certain new works and freeing the Government from annuities

contracted by them towards the company. In 1899 the Ouest and the Midi alone appealed for aid, their joint total falling to £360,000; but in 1901 the requirements of the companies were increased (owing to higher working expenses) to £2,000,000. The following year there was a decline to £1,040,000, the Ouest asking for £800,000 and the Est and the Midi for £240,000. There was a still further decline in 1903, when the total amounted to £640,000, of which the Ouest needed £560,000 to meet its deficiency.

These more recent figures show a decided improvement, and there is now an expectation that in the course of another two or three years the companies will no longer require State aid. One must bear in mind, however, that there are still enormous balances against certain of the companies on account of past advances not yet repaid, with also accumulations of (simple) interest thereon, the official statement of the Minister of Public Works for the year ending December 31, 1903, showing that the totals then owing were as follows :

Company.			Due in respect to Advances made.	Due in respect to Interest unpaid.	Total.
Est ...	...	...	£ 6,639,000	£ 2,282,000	£ 8,921,000
Ouest ...	...	...	11,040,000	3,766,000	14,806,000
Orléans ...	...	...	5,761,000	2,635,000	8,396,000
Midi ...	...	...	7,346,000	2,828,000	10,174,000
Totals ...	...	...	30,786,000	11,511,000	42,297,000

Still more formidable are the detailed figures as to the amount of public money which has been spent in France on the construction of railways, whether now

added to the systems of the great companies or operated separately in the name of the State. Some idea of the magnitude of this expenditure has already been given, but the following table, compiled from the latest available report of the Minister of Public Works, shows what had been laid out by the State and local authorities on the 'dépenses d'établissement' of railways in France down to December 31, 1901, 'dépenses d'établissement' representing the amounts expended by those authorities on the construction, completion, or purchase of railway lines since mostly added to the systems which are now operated by the great companies :

Name of Company.	Total for System.	Total per Kilometre.
	£	£
Nord	3,995,000	1,076
Est	31,150,000	6,413
Ouest	36,317,000	6,214
Paris-Orléans	41,429,000	5,680
Paris-Lyon-Méditerranée	45,291,000	4,876
Midi	22,323,000	6,097
	180,505,000	—
Ceinture de Paris	827,000	48,686
Grande Ceinture	216,000	1,968
	181,548,000	—
Chemins de Fer de l'État*	6,887,000	2,477
	188,435,000	—
Secondary Systems	4,171,000	2,678
Grand total	192,606,000	—

* Including costs of purchase, construction or completion, rolling stock, etc., the total amount of capital invested by the State in the Chemins de Fer de l'Etat stood on January 1, 1903, at £26,000,000. The receipts and expenditure and net result constitute a supplementary 'Budget,' which is voted by the Chambers each year. 'Costs of establishment,' however, are not

Everyone must see that railway companies which have received direct or indirect aid from the State to the extent shown by the two tables here given are in a very different position from systems such as those in Great Britain, which depend entirely on private capital, have had no help from State or local authorities in the construction of their lines, and have no State at their back to advance them funds to make up a satisfactory dividend should their earnings not suffice for the purpose. Not only in the one case have the lines cost the companies much less than in the other, but a company whose interest and dividend are guaranteed by the Government has far less reason to hesitate about the concession of low rates to traders than one which, depending on its own resources, must necessarily operate its lines from a strictly commercial standpoint.

Whether or not the State has acted wisely in adopting the policy that has led to these various results is a question on which differences of opinion are entertained in France. In some quarters there is considerable uneasiness at the magnitude of the financial burdens which have been assumed. The annual charges upon the State in respect to railway construction and operation (including interest on capital borrowed, annuities, guarantee of interest, etc.) represent a sum total of £11,000,000. But against these figures there are various considerations to be set. The State, one is reminded, has borrowed at 3 per cent. the money for which the railway companies pay 4 per cent. (except in the case of the Midi, which, under special conditions, pays 3 per cent.). Then, as regards the annual charges, it is pointed out that the State draws over £6,000,000 a year

included therein. They form part of the ordinary Budget of the Minister of Public Works. Interest on loans for the State railways is added to the public debt of the country.

from the railways in the shape of taxes (imposed in the form of stamps or otherwise) on much of the passenger and goods traffic, on share certificates and other documents, on income, and on other things besides. Most of these taxes do not figure in the companies' statements of receipts and expenditure, being regarded as sums that are simply collected for the State, and duly paid over to it, by the railways. It is quite possible, too, that the greater part of them would be levied, for revenue-producing purposes, whatever the conditions of ownership of the lines. It is, again, claimed that the State makes a saving of £3,600,000 a year in economies effected (thanks to the terms of its agreements with the railways) in regard to mail services, telegraphs (that is, the fixing of telegraph poles and wires along the railway lines), and cheaper transport of troops, marines, excise officers, and other public servants. Still further items, it is claimed, help to make the sum total of the 'bénéfices' derived by the State from the railways almost counterbalance the annual charges upon the national Budget. Finally, one is reminded that, on the falling in, between 1950 and 1960, of the various concessions, the State will be the actual owner of 25,000 miles of railway, valued at £640,000,000. Altogether, therefore, it is declared by defenders of the general railway policy of France that 'the State has made a very good bargain.'

Be this as it may, no one can deny that the responsibilities devolving upon successive Governments in connection with the supreme control of the railway system of the country has from time to time provoked great confusion, and led to endless disputes and worries in the Chamber of Deputies, where the members, instead of devoting their attention to questions of legislation and State policy, have had to take part in deciding on a host of matters of detail concerning railway management which

in England would be settled by practical railway men at a Clearing-House conference.

There is, also, reason to believe that this supreme control of the French railway system by the Government of the day has led to much abuse from a political standpoint. Candidates for the favour of constituencies have readily promised to 'use their influence' to secure the construction by, or through, the Government of small local lines of railway which might be a source of convenience in themselves, but could not possibly be made to pay. Conditions such as these have led not only to much political jobbery, but also to serious complications in the railway situation in general. Whether constructed under such circumstances as those here suggested, or (as may have happened in many cases) to answer legitimate requirements, the mass of purely local lines which a glance at a railway map of France will reveal has been a heavy drag on the resources of the great companies who agreed to absorb them into their systems. The number of main lines of national or international traffic in France is small in comparison with the multitude of lines that either yield a very slight return or else are carried on at a loss.

In this one fact we have the crux of the railway position in France. Assuming that it was in the interests of the State that all these local lines should be made, then the State, it is argued, can rightly be expected to contribute to their support. In England, of course, the railway companies operate many branch lines that are not directly remunerative, but are, nevertheless, regarded as 'feeders,' and are therefore commercially practicable. In France private effort is less enterprising than in England, though it is only fair to add that if a certain proportion of the local lines in the former country have indeed been constructed by

one Government or another as 'sops to the electorate,' the companies may well have hesitated to absorb them, except under conditions favourable to themselves.

Then there is a party in France which advocates that the State should buy up the railways at once, without waiting for the lapse of the concessions. This proposal is much favoured by the Socialists; but the political possibilities in France of a situation under which the Government of the day controlled many thousands of appointments in the railway service have caused much apprehension, and have led to an expectation that, when the present concessions expire, the Government will renew them to the same or other companies, in preference to taking the entire exploitation into their own hands.

All the same, State purchase of the companies' systems, without awaiting the expiration of the concessions, would seem to be held over them *in terrorem*. In fact, only a year or so before the conventions of 1883 were arranged, the then Under-Secretary of State for Public Works declared, at a meeting held in Bordeaux, that 'unless the companies reduced their rates they would be dissolved.'

When one looks at the direct relations of the French Government with the railway companies, the position is found to be a distinctly anomalous one. The Government have a patriotic interest in seeing that the railways are operated in such a way as to promote the interests of passengers and traders; they also have a proprietary interest in seeing that the management of the railways will not decrease their value as a going concern when, on the expiration of the terms of concession, they become the property of the State, which has already made such great financial sacrifices for them. From the latter point of view, therefore, the Government

watch over them *en bon père de famille*. On the one hand, they do not want the companies to impose rates and charges which would be unduly high, because this would injure the industrial and commercial interests of the country; on the other hand, they have their own reasons for not wishing that the companies—encouraged thereto by the State guarantee of interest—should reduce the rates and charges to a non-remunerative point, because this would not only increase the demands on the Treasury, but would prejudice the commercial value of the railways to the State later on. In the same way the State claims the right to be consulted as to any additions to the rolling stock of the companies, in view of its obligation to take over such rolling stock at a valuation when the concessions expire. Not only this, but a railway company in France may not add a single train to its time-table without the consent of the Minister of Public Works, nor can the change even from the summer to the winter service, or *vice versâ*, be effected until there have been repeated meetings between the representatives of that Minister's department and the officials of the line concerned. 'Almost everywhere,' says M. C. Colson, in his 'Abrégé de la Législation des Chemins de Fer et des Tramways,' 'railway companies have been subjected to a control less strict than in France, and have had much greater latitude in regard to management and the fixing of their tariffs.'

The fundamental principle on which railway rates and charges in France are based was laid down by Article 44 of the Ordinance of November 15, 1846, which set forth that no charge, no matter of what kind, should be imposed by a railway company, or altered when once authorized, without the 'homologation' of the Minister of Public Works. For a long time the companies argued that the powers conferred on the said

Minister did not go beyond verifying the proposed rates and charges, with a view to seeing that they did not exceed those specified in the ‘cahier des charges,’ in which the terms and conditions of the original concession are set forth. Subsequently, however, it was admitted by the companies that the word ‘homologation’ has all the force of ‘approval’; that every change in a railway rate, whether decrease or increase, must be expressly sanctioned by the Minister of Public Works; and that he has the right to reject, if he should think fit, any proposed rate or charge that is not simply a reproduction of the aforesaid original terms and conditions.

The power of initiative in regard to rates and charges remains with the companies. It is open to them to suggest such changes as they think fit, and the Minister himself cannot directly compel them to alter their rates. The power that he possesses is simply a power of veto, and it is one that must be exercised *en bloc*. He may not sanction a proposed change of rate as it affects one town, and refuse it in the case of another to which the company propose it shall apply. Nor may he concede the decrease of a certain rate and strike out any modifying condition by which the railway company propose, in return, to reduce their own liability. But while he cannot force his own ideas on the companies against their wish (since his doing so might prejudice the value of their concession), he may—and he does—indicate the alterations in the programme presented to him which will insure his approval of the whole, and it is for the company to consider whether it will suit them better to abandon their proposals altogether or to fall in, preferably, with the views of the Minister.

The effect of these various conditions is seen in a striking manner when one looks into the details as to

what must be done before the change of an ordinary inland or domestic railway rate can be secured in France. In Great Britain, whereas there are restrictions on the increase of a railway rate—even within the legal maxima—a general manager or a chief goods agent is, generally speaking, free to grant a reduction of rates at any time, at once, and on his own responsibility, if a trader or a body of traders should convince him of the desirability and practicability of such reduction; though he must be careful what he does, and make no risky experiments, because, if it should subsequently be found necessary to restore the reduced rate to its former level, such restoration will count as an 'increase' which the company must advertise, running the risk also of having to appear before the Board of Trade to defend the advance. But across the Channel even the reduction of a rate (except in certain instances) cannot be brought about until a very complex procedure indeed has been gone through. What this procedure represents may be thought worth narrating in the special interest of those who are disposed to think that railway conditions abroad are better than they are at home.

Assume that a certain body of traders in France desire to have a lower rate conceded between two given points. They will, in the first instance, send a statement of their case to the railway company, whose responsible officials will investigate the matter. If they approve of it, they must not at once accede to the application, as would be done here. All they can do is to start it on its travels by sending it to the Minister of Public Works, accompanied by a statement of the company's own views, giving the reasons for their endorsement of the request. Copies are sent to the Commercial Control Department, to be reported on by its officials,

and to the Prefect of each and every district through which the lines affected by the proposed changes run, and notice must also be given in the *Journal Officiel*, in case there may be other districts likely to be prejudiced. Then each Prefect is required to communicate the proposition to the Chambers of Commerce in his department, and give them the opportunity of making their own observations thereon. This having been done, the application, together with the comments of the Chambers of Commerce and of other persons, whoever they may be, interested in the matter, is examined, first by the Inspecteur de l'Exploitation Commerciale de la Conscription, then by the Contrôleur-Général, and so on to the officials of any maritime ports, navigable waterways, or mining districts affected, until it gets into the hands of the Inspecteur-Général du Réseau.

By this time the documents in the case will probably have assumed the proportions of a substantial 'dossier.' All the same, the real consideration of the matter is now only about to begin. What has been done already is preliminary to the proceedings of the Comité Consultatif des Chemins de Fer, one of the four advisory committees which aid the Minister of Public Works in keeping watch and guard over the general railway system of the country. It consists of—(1) representatives of the Administration, and (2) representatives of the agricultural, commercial, and industrial interests. The list of members for the years 1905 and 1906, as published in the *Journal Officiel* for January 12, 1905, is as follows :

Sénateurs (10). Deputés (19). Charles Blanc, Colson, Cotille, Herbet, Sainsère, conseillers d'État, membres de la section des Travaux Publics, de l'Agriculture, du Commerce, de l'Industrie, et des Postes et Télégraphes. Renaud, premier président de la Cour des Comptes. Courtin, président de chambre à la Cour des

Comptes. Laurent, directeur général de la Comptabilité publique. Brunet, directeur général des Douanes. Blondel, inspecteur général des Finances. Pallain, gouverneur de la Banque de France. Le directeur du Commerce, le directeur du Travail, le directeur de l'Exploitation postale, le directeur de l'Assurance et de la Prévoyance sociales au Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. Mascuraud, membre de la Commission supérieure des Expositions et du Conseil supérieur de l'Enseignement technique au Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. Le président du Tribunal de Commerce de la Seine. Sciamia, membre de la Chambre de Commerce de Paris. Tisserand, directeur honoraire au Ministère de l'Agriculture. Daubrée, directeur des Eaux et Forêts au Ministère de l'Agriculture. Vassilière, directeur de l'Agriculture. Bénard, membre du Conseil supérieur de l'Agriculture. Bley, directeur du Cabinet au Ministère de l'Agriculture. Vigier, président de la Société Nationale d'Horticulture de France. Caze, président de la Société Nationale de l'Encouragement à l'Agriculture. De Lagorsse, secrétaire général de la Société Nationale d'Encouragement à l'Agriculture. Lebon, membre de la Société Nationale d'Encouragement à l'Agriculture, et du Conseil supérieur du Commerce. Cazelles, secrétaire général de la Société des Viticulteurs de France et d'Ampélographie. Henry, directeur des Consulates et des Affaires commerciales au Ministère des Affaires étrangères. Edgar Combes, secrétaire général du Ministère de l'Intérieur. Le général Zimmer, sous-chef d'état-major général de l'Armée. Dislère, président de section au Conseil d'Etat. Holtz, Lethier, Quinette de Rochemont, inspecteurs généraux des Ponts et Chaussées. Worms de Romilly, inspecteur général des Mines. Firmin Raimbeaux, administrateur général des Mines de Marles. Papelier, fondateur des Docks Nancéiens. J. Fleury, ingénieur civil, membre du Comité consultatif de la Navigation et des Ports. Armez, Lahaye, Gruner, ingénieurs civils. Ricard (Louis), membre d'honneur de l'Institut des Actuaire. Griolet, membre de la Commission permanente du Congrès international des Chemins de Fer. Pérocheau, ouvrier ajusteur dans les Ateliers de la Compagnie des Chemins de Fer de l'Ouest.

If the proposed alteration in rates should be an important one, the Consultative Committee, constituted as detailed above, will appoint a subcommittee to investigate the matter. Otherwise a single member will be delegated to study the various documents and report thereon. The Committee will then consider the report thus made, and, should it think fit, it will make an inquiry on its own account, calling on representatives

of the railways, or of the other interests affected, to attend and give such further information as may be desired. Presumably, also, each member of the Committee has the right to express his views on the subject. Finally, a decision is arrived at by the Committee; but this decision can take the form only of a recommendation to the Minister of Public Works; while, after all the circumlocution thus gone through, it is still open to the Minister in question to disregard everything that has been done, and give the ultimate decision, 'Oui' or 'Non,' according to his own individual opinion. In practice, however, he is generally guided by the advice of the Consultative Committee. Of late years, it should be added, the Minister has only given provisional assent to changes in rates, so that he can withdraw his 'homologation' whenever he thinks fit, though he may not do this until he has made an inquiry as exhaustive as that held in the first instance.

One month is the least period in which an alteration in an ordinary railway rate in France can be made to pass through the various necessary stages, and it may very well happen that the procedure will occupy for from six to twelve months. There is a case on record in which a company applied early in the spring for permission to grant a lower passenger rate to a certain seaside resort. The matter was considered, and the Minister eventually granted the request; but the notification of his assent did not reach the company until the month of October—when the holiday season was over!

I leave the British trader to say for himself whether a reduction of railway rates should or should not be included among the things which 'they manage better in France.'

Theoretically the system of railway rates in France

is extremely simple. In effect it presents many complications. The *base kilométrique* (corresponding to 'equal mileage'), on which it is assumed to be mainly founded, goes back to those early days when the rates were fixed at a specified sum per ton per kilometre for each of the three classes into which all commodities were then grouped. In 1863 a fourth class was arranged for coal, minerals, etc., the rates for which were to decrease per kilometre in proportion to the distance carried. Subsequently, while the Orléans company kept to four classes, the Est and the Midi had five, the Ouest six, and the Nord and P.-L.-M. seven. In 1879 a more uniform classification for all the companies was established, and the fixed rate per kilometre was thenceforward retained for short hauls only, the system of a diminution of rate with increase of distance applying in all other cases. But the tariffs under this system (*tarifs à base décroissante*) are of various types, according as the reductions in respect to distance are continuous, apply to separate distances of 100 kilometres, or, alternatively, do not go beyond a specified limit. Nor can the trader decide the distance for himself. Where several lines of varying length run between two given points, some direct, others in circuitous fashion, the rate for all must be according to the shortest route. In this case the trader may be charged less than the actual distance traversed. If, on the other hand, the railway passes through hilly or mountainous country, where the cost of construction has been heavy, the railway company is allowed to count 1 kilometre as 2, 3, or more. In that case the trader pays for a greater than the actual distance.

Then the *base kilométrique* had to yield to *prix fermes* in the case of staple commodities passing in greater bulk between two stated points than over the remainder

of the system, and therefore justifying the exceptional treatment they often required in the interests of trade. These *prix fermes* gave a rate which was lower than the recognised rate per kilometre would have been. One difficulty was thus surmounted, but only to give rise to others. Traders in places situated between the two places for which a fixed rate had been conceded claimed the same advantages for themselves when the rate for the shorter distance was more than for the longer one. This was allowed; and then followed also the 'soudure' system, under which, assuming that a fixed rate was granted between A and B, the rate between A to C was made up of the fixed rate from A to B plus the local rate from B to C. The concession, therefore, of a fixed rate, desirable enough in itself, might very well involve much complication. In fact, as M. C. Colson writes in his 'Abrégé de la Législation des Chemins de Fer et des Tramways':

When there are numerous lines connecting two distant points—some direct, others indirect—one is obliged, in order to find the most advantageous rate, to make comparisons between all the combinations of rate that one can arrange between the different routes, keeping count of all the *prix fermes*, or of all the exceptional rates which may be in force on such and such sections of the total journey. Even if it should be easy to ascertain the particular charges for a specified route, it is often difficult to discover all those to which a non-specified route may be entitled, whether by way of intermediate distance or by reason of the 'soudure.'

In one district, again, rates will be kept lower by reason of water competition than for equal distances in another district. On this point M. Colson observes:

It cannot be said that the reductions made in these circumstances are unjustifiable, assuming that they leave a balance, however small, in favour of capital after covering cost of transport, when, on a competing route, the State is not demanding from users either interest on cost of construction or charges in respect to maintenance. On the other hand, one cannot expect the

railway companies to make general the rate reductions thus conceded to meet competition on waterways, where no tolls are demanded. The companies are, in principle, bound to secure a return on their capital, and maintain their lines with the product of the traffic. One would impose on the companies losses—ruinous for themselves when they are not guaranteed, and ruinous for the State when they are guaranteed—if by the interdiction of *prix fermes* or of localized tariffs they were put in the alternative either of completely renouncing all competitive traffic, or of extending to their entire system reductions which the special favours conceded to navigable waterways render obligatory between certain points.

It is, of course, in the matter of exceptional rates that the greatest divergencies from the original *base kilométrique* have been brought about. So far back as 1857 the French companies were prohibited from granting reductions in rate to individuals or particular groups of traders—giving them undue preference, in fact. They were still free, however, to make special rates for certain commodities between particular stations or districts, and such special rates became a great power with the companies, who looked to them for the main part of their revenue. At one time the number of such rates was so large that the *base kilométrique* was almost lost sight of. Exceptions had become the rule, and the rule the exception. There were no fewer than 1,854 special tariffs in operation in France in 1880, and under them the companies carried four-fifths of their total traffic in goods and minerals. Various reductions or simplifications of rates since brought about have swept away the greater proportion of this large number (especially as regards those applying to 'Grande Vitesse' traffic), but exceptional rates still play an important rôle in France in the carriage of produce and merchandise by rail. It is under these rates that the bulk, not only of the 'Petite Vitesse' traffic, but also of French exports for British markets, are despatched; and it is with them also, I

may add, that, when French rates are in question, comparisons with English railway rates are generally made.

Exceptional rates in France can only be applied (in lieu of the ordinary tariff) on the demand of the sender, because it is imperative that he should agree to those more favourable conditions for the railway company on which alone the lower rates are granted to himself. The most important of these conditions is a prolongation of the period within which (except in the case of perishables) the goods are to be taken to their destination, so that, if necessary, they may be kept back a longer time until the company can load up waggons, or make up trains, to better advantage. The liability in respect to delay or damage is decreased; specified quantities must be handed in, or, at least, paid for; the traders must do their own loading and unloading; the commodities carried must (in certain instances) be intended to serve a specified purpose (such as lime for farmers), or have a particular destination (such as oil for ironworks or steel mills); and so on with other stipulations besides.

The most important of the exceptional rates in France fall under three main categories—(1) special export rates; (2) special import rates; and (3) special transit rates. On each of these I propose to say a few words.

1. Exceptional export rates have been much favoured by French Governments in the interests both of commerce and of agriculture. In a decree made in 1862 the principle was established that any railway company which gave notice to the Minister of Public Works of its desire to concede such rates for any particular commodity was at liberty to do so after a delay of only five days, provided that in the meantime the Minister had raised no objection. For the purposes of these rates,

however, the ports in France are divided into groups, and a rate arranged in the special interest of any one port applies to all the ports comprised in the group to which it belongs. When, also, the fresh conventions of 1883 were entered into, the railway companies gave a written undertaking, in the form of letters addressed to the Chambers, that they would place themselves at the disposal of the Government in the concession of further special export rates, to facilitate the despatch of French manufactures or French produce to foreign countries. The rates so conceded are certainly very low; but where (as is generally the case) the railway companies carry truck-load, if not, indeed, train-load, lots, and have such exceptionally favourable conditions as those already stated, they do not necessarily lose on the business. Even if they should, there is always the State guarantee of interest for them to fall back upon in order to keep up the dividends.

2. The exceptional import rates have aroused strong opposition from time to time on the part of French traders, who represent that the effect of them is to encourage foreigners to send their produce or their goods into France, to the detriment of French industries. In other words, a line of policy which is praiseworthy as sauce for the British goose is regarded as intolerable and unpatriotic when applied to the French gander. The companies were assumed to be acting quite right when they carried, at exceptionally low rates, train-loads of French produce for consignment to England; but they provoked bitter complaints when they gave special import rates for fish from England, coal and steel from either England or Belgium, wines from Spain, sheep from Germany, or wheat from the United States. So strong, in fact, was the feeling aroused that, when the conventions of 1883 were entered into, the

companies further promised, in the aforesaid letters to the Chambers, to submit to the views of the Government in regard to the modification of any rates the effect of which might be to interfere with the fiscal policy of the country, provided that the articles in question were not allowed to be imported by other means of transportation—river steamers or canal boats, for example—at lower rates than those the railways would be prepared to charge.

3. The special transit rates aim at securing the passage through French territory of consignments despatched from one foreign country for delivering in another. They have been attacked by French traders on the ground, for instance, that English goods carried by way of France to Germany, at specially low rates, are thereby enabled to compete more successfully with French goods on the same market. Belgian, Dutch, and German ports, however, were found to be competing severely for traffic to or from Italy, Austria, and other countries, of which, it was thought, the French ports should have a larger share. To secure this result, therefore, it was further arranged, as the outcome of the 1883 negotiations, that the principle of *tarifs à prix réduits* should undergo still wider application in regard to transit traffic.

Under a decree of 1862 it had already been conceded that special transit rates could be put into operation after giving only twenty-four hours' notice to the Minister of Public Works. While, therefore, any home traders in France who want a reduction in domestic rates must (as shown in connection with the Ministerial 'homologation') possess their souls in patience, anything that concerns foreign trade is regarded as a matter of urgency, and one that will brook no delay.

To sum up the general position in regard to the

French railway system, the conclusions at which one must arrive may be stated thus :

1. To insure the construction of the railways at all, the State has assumed enormous financial obligations, which (notwithstanding the fact that the State will eventually take possession) have weighed heavily on the national Budget. While, however, this policy has involved French taxpayers in grave responsibilities, it has greatly diminished the capital expenditure of the railway companies of France, as compared with that of the railway companies of Great Britain. This fact alone would suffice to give an advantage to the former companies over the latter in regard to their scales of rates and charges.

2. The guarantee of interest by the State, under which large sums have been advanced from time to time, should further enable the railway companies in France to grant rates substantially lower than would otherwise be practicable.

3. The State, as a partner in the railway business in France, has made use of the railways in order to foster home industries by means of exceptionally low export rates ; while these, further, are made to apply under conditions which are exceptionally favourable to the French railway companies and are not necessarily applied, or existing, in the case of traffic on British railways.

4. The fundamental conditions in regard to the history and operation of railways in the two countries being so essentially different, there is no fair basis of comparison in regard to their respective rates and charges, unless these differences are borne in mind and allowance made accordingly.

CHAPTER XVI

THE RAILWAYS OF GERMANY

THE beginnings of railway enterprise in Germany were characterized mainly by mistrust and lukewarmness, if not actual opposition, on the part both of Governments and of financiers.

The Governments were, in the first place, afraid of the 'liberal' tendencies of the new means of locomotion. They were convinced also that transport by locomotive could never be made to pay. When lines from Berlin to Leipzig and Berlin to Magdeburg were projected, the Prussian authorities of those days reported that they had had very careful observations made as to the amount of traffic between the cities in question, and they found it would be insufficient to support even a single line of railway. Inspired by such assertions as these, Prussian financiers kept their money back for safer investments. In Bavaria, again, one of the chief medical authorities in the State, who had been evolving railway dangers from the depths of his inner consciousness, went to Ludwig I. and assured him that, not only passengers, but spectators also, would have their brains seriously affected by the new steam conveyances; and, in the interests of the general public, at least, he advised that lofty hoardings should be erected alongside the lines, so as to shut out the view of the trains.

Under this combination of circumstances it was left

to private enterprise to take the initiative in railway construction in Germany, the State remaining in the background until individual pioneers had shown the way.

The apostle of the railway movement there was a certain Professor Friedrich List, who returned to Germany in 1832 after a seven years' residence in America, and projected the construction of a considerable network of railways, with Leipzig as a centre. The difficulties he encountered at the outset were enormous; but news of what was being done in England stimulated interest in the subject, and the opening, in 1835, of the first German railway between Nürnberg and Fürth (a distance of about 4 miles) was followed, two years later, by that of the first section (covering a length of $5\frac{1}{2}$ miles) of the Leipzig-Dresden line. Even in 1838 the Berlin-Potsdam line was regarded as little more than an experiment, and it was not until 1840 that the official prejudices against railways began to disappear.

When the awakening came in Prussia, the idea of the new and important 'force' represented by the locomotive remaining in the hands of private companies was regarded with much aversion by the official classes, who then began to think that, if railways there were to be, it was they who should have the control of them. But even a State cannot build railways without having a substantial amount of capital available for the purpose, and the political situation in Prussia between 1840 and 1847 was distinctly unfavourable to the raising by the State of large funds for railway construction. All that the Government could then do was to grant concessions to private companies (not for any fixed term of years, as in France, but with an understanding that the State would be at liberty to undertake itself the operation of the lines at such time as it thought fit), and to guarantee to the

companies the payment of $3\frac{1}{2}$ per cent. interest on their capital. When the net profits exceeded 5 per cent. the surplus was to be devoted—(a) to paying back the advances made by the State in respect to guarantee of interest; (b) to the formation of a fund from which further advances could be made when necessary; or (c) to the buying up by the State of shares in the undertakings. In some instances the State further sought to stimulate enterprise in railway construction by at once purchasing shares in a company, in addition to giving the guarantee of interest.

In this way the scruples of financiers began to be overcome no less successfully than the previous scruples of the leading officials, and between 1843 and 1847 there were started in Prussia some seventeen new railway companies, which opened up communication between inland towns and such ports as Hamburg and Bremen. Following on the political troubles of 1848, Prussia's rulers were able to get control of larger funds for railway purposes, and the State came to the relief of a number of lines which had suffered as the result of the crisis, completing the construction of some, and taking over the operation of a number that were practically bankrupt.

Meanwhile, other German States had also been showing more or less activity. Brunswick was the first to build State railways. In Baden a line from Mannheim to Heidelberg had been constructed at the public cost, since no company was willing to run the risk. In Würtemberg some main lines were started by private enterprise, but the company failed, and the State had to take over the work. Bavaria had a like experience. In Hanover the State system was adopted from the first. In Saxony the State sought to encourage private enterprise by subscribing for shares in the companies to

which concessions were granted, and guaranteeing the payment of interest; but when, in 1845, it became a matter of building a line from Dresden to the Austrian frontier, the State had to carry out the undertaking itself. In Hesse also the system was 'mixed,' some of the lines being built by the Grand Duchy, and some by private companies.

Between 1851 and 1860 there was in Prussia an especially active development of railways, including a number constructed by the Government to serve strategical as well as commercial purposes. In 1862-1866 Prince Bismarck, then in chronic conflict with the majority in the Prussian Diet, had difficulty in getting his Budgets passed, and he made his first resort to the raising of money from the railways as a means of replenishing the treasury (especially for army purposes) independently of the Prussian Parliament. This he did by granting concessions for new railways on especially favourable terms, the companies being willing to pay generously when, for instance, they were absolved from the obligation to sell out to the State, on demand, on the merely nominal value of their shares. After 1866 Bismarck's relations with the Parliamentary majority improved, while the incorporation of Hanover, Hesse-Cassel, Nassau, and Frankfort, as well as Schleswig-Holstein and Lauenburg, led to a substantial expansion of the Prussian State system of railways. The further result of the wars with Denmark and Austria was to give great impetus in Prussia to railway expansion in general. The Prussian State especially became still more enterprising, building lines which, in some instances, competed with those of the companies to whom it had granted concessions, so that the companies, in their turn, sought to defend their own interests by a resort to amalgamation.

The other States of Germany also continued more or less active; but the fact that each particular State maintained its own particular railway policy had led to much confusion, especially in regard to through traffic. In some States the railways were all controlled by the Government; in others they all belonged to companies; while in others, again, some belonged to the State and some to private companies. Whatever the general conditions, the rivalries of numerous small systems, the jealousies of one State towards another, and the endless and almost bewildering complications of the tariffs and general arrangements were the despair of traders, and a decided obstacle to the expansion of Germany's commercial interests.

These conditions were rendered still worse by the feverish haste with which the work of railway construction throughout Germany, and especially in Prussia, was taken up at the end of the Franco-German War of 1870-1871. But the active brain of Prince Bismarck had already projected a scheme which would have meant not only complete uniformity for German railways as a whole, but much more besides. He proposed that all the railways of all the different States should be bought up and operated by the Empire as a 'Reichseisenbahn' system, instead of each State having its own independent network, whether 'Staatseisenbahn,' or private, or both.

The beginnings of such an Imperial railway system then already existed in Alsace-Lorraine, where the lines operated by the Eastern of France Company had been taken over by Germany, compensation to the amount of £13,000,000 being paid to the company out of the war indemnity imposed on France. The railways of Alsace-Lorraine thus became (and they have since remained) the property of the 'German Empire,' as dis-

tinct from the lines belonging to individual States ; and Prince Bismarck's idea was that around the nucleus thus brought into existence all the railways of Germany should be grouped.

To this project, however, strong opposition was raised by Bavaria, Würtemberg, Saxony, and other States. They wished to maintain the independence of their own railway systems, and they were especially unwilling that the representatives of the 'Reich' should take out of their hands the making of thousands of appointments to the railway service, and the allotting of valuable contracts for railway construction. Afraid lest Prince Bismarck might, after all, buy up the private railways behind their backs, several of the States which had not already got a complete system of 'State' railways hastened to acquire one by themselves purchasing the private systems within the limits of their own boundaries.

Bismarck's dream of a great Imperial system of railways, belonging to and operated by the 'Reich,' in the interests thereof, remained unfulfilled. But those who thought they had checked so bold a schemer reckoned without their host.

What Prince Bismarck could not get for the Empire he proceeded to get (as far as he could) for—Prussia ! Instead of disposing of the Prussian State system to the 'Reich'—as he had been quite ready to do—he not only strengthened it by fresh purchases of private lines within the limits of Prussia, but he acquired possession for Prussia of practically all the main routes of railway communication in North Germany, whether they were in the Prussian boundaries or not. No compulsion was offered to the companies, but they were offered such generous, and even in some instances such extravagant, terms that they found it to their interest to sell.

It was in 1878-1879 that the Prussian Diet resolved upon its policy of State purchase, and it was on April 1, 1880, that the policy was formally inaugurated. At that time the Prussian State system comprised about 3,760 miles of railway, of which the State had itself constructed all but about 470 miles. In 1883-1884 the Government was especially active in buying up such privately-owned lines either in Prussia or in neighbouring States as were thought worth taking over and could be secured. By April 1, 1900—that is to say, within ten years of the new programme being begun—the length of the State lines in Prussia had been increased to 16,725 miles; while the Minister of Public Works also exercised supervision over 2,127 miles of railway in other German States, making a total of 18,852 miles, exclusive of lines authorized or under construction.

The influence of Prussia on the railway policy and practice in Germany thus became supreme north of the Main; for though Mecklenburg and Oldenburg retained their State systems, any attitude they might adopt that was opposed to the administration of the Prussian system would be little more than a negligible quantity. While, again, in the South, Saxony, Bavaria, Würtemberg, and Baden also remain independent, it is scarcely possible for them to carry out a line of railway policy of which Prussia may disapprove; and the expectation is, rather, that in course of time still other States will follow the example set by Hesse-Darmstadt, which combined her railway system with that of Prussia in April, 1897.

When the Bismarckian scheme for the State purchase and the State operation of private railways in Prussia was still under consideration, there was an expectation on the part of its chief supporters in the political world of Berlin that it would serve the purposes of

(1) State policy and (2) national, and especially traders', interests.

Under the first head railway tariffs were to play an important rôle in supporting and strengthening Prussia's protective policy. In certain cases the increased import duties, which aimed at fostering native industries, were nullified by the action of the railway companies in lowering their rates on imports. In other cases, as a matter of ordinary railway policy, the companies granted special rates for goods imported and carried in large quantities. By controlling the Prussian railways, Bismarck would be able to check both of these practices, and render hostile tariffs on foreign imports still more effective.

Under the second head it was assumed, among other things, that when the Prussian railways were no longer exploited by companies having an eye to dividends, the traders (except in regard to imports) would gain very substantial reductions in rates and charges.

The former of these two assumptions has certainly been realized to the full, but the same cannot be said of the latter.

German writers who deal with the events of this particular period show that, in respect to the future of railway rates in Prussia, under the new régime of State control a threefold development was anticipated :

1. Until the railway system of the country as a whole had been developed, the scales of rates which had been charged by the companies must, they held, be continued by the Government, to provide funds for extensions, etc., and also in order that the surplus from the remunerative lines should cover the losses incurred in the operation of unremunerative lines.

2. In proportion as the entire railway system advanced towards completion, the fares, rates, and charges

would be reduced, so as to fall as closely as might be within the principle that such fares, rates, and charges should do no more than meet working expenses; though the fact was realized that in this middle period the income would require to be such as would allow also of payment of interest on capital and the redemption of bonds.

3. When eventually the bonds had all been paid off, and the lines were free of debt, the fares, rates, and charges would be still further reduced—to such a point, in fact, as to do little more than just cover the cost of operation.

Such were the anticipations cherished by those who favoured Prince Bismarck's purchase scheme, but they were speedily doomed to disappointment.

The operation of the Prussian railways by the State has undoubtedly been most successful from a purely financial standpoint. Built mainly on the level plains of which Northern Germany chiefly consists, the lines (even including bridges over important rivers) had cost less than half the amount per mile to construct that railways here have cost, and much less even than the lines in the South of Germany. Then, on the other hand, they served the interests, not only of densely-populated localities, but also of a great variety of important industrial districts, which afforded big loads and long hauls far in excess, generally speaking, of what can be secured under normal conditions in England. Nothing but gross mismanagement could have failed to make the Prussian State railway system a source of profit, especially with the industrial impetus that followed the Franco-German War; though the returns from railway operation in the other German States are not anything like so high as in Prussia.*

* 'C'est en Prusse seulement que les voies ferrées bénéficient de conditions exceptionnellement avantageuses [in Germany], et c'est

In effect, Prince Bismarck soon realized that, after paying working expenses and meeting annual charges in respect to interest and sinking fund, Prussia's State railways were yielding a handsome return. According to the theorists, the profits thus made should, as we have seen, have been applied, partly to improvements, and partly to reductions of fares, rates, and charges until these attained to an absolute minimum.

But Prince Bismarck had his own ideas on the subject. Whether or not he had had them all along one cannot say; but certain it is that when those handsome surpluses began to appear, he appropriated them for the general and special purposes of his Government. What he particularly desired was to have control of substantial funds independently of such votes as he might induce the Prussian Diet to pass. To win the support of certain political groups he had consented to an abatement of taxes in some directions and to increases of expenditure in others, and the railway surpluses both enabled him to make up the deficiency thus caused without asking for more money from the Diet, and also put him in possession of funds for purposes in respect to which the Diet would probably have refused him a vote even if he had asked for one. In other words, the State railways became for Prince Bismarck—and for the Chancellors who have succeeded him—what has appropriately

la Prusse seule qui tire de ses chemins de fer d'État de réel bénéfices. Dans les autres États de l'Empire, Bavière, Saxe, Wurtemberg, Bade, Alsace-Lorraine, le revenu net des chemins de fer varie de 2.50 à 4.50 per cent. du capital. Le réseau prussien (fusionné avec celui de la Hesse) donne un produit net de 688 millions [£27,520,000] pour un capital de 10,506 millions [£420,240,000], soit 6.56 per cent. Le revenu kilométrique atteint 55,000 francs sans que le coût moyen des lignes dépasse 330,000 francs, la facilité du pays compensant l'extension plus grande des installations.'—*Revue Générale des Chemins de Fer*, August, 1904.

been described as 'a revenue-producing machine,' constituting, in fact, 'one of the chief sources of revenue to the State.' The extent to which this has been the case may be judged from the following table, which gives, in round figures, the net proceeds from the Prussian State railways for the years stated, and the proportion they bear to the invested capital. The latter stood on March 31, 1904, at £430,000,000 :

Year.			Net Proceeds.	Percentage on Capital.
			£	
1894-1895	...	...	19,000,000	5'66
1895-1896	...	...	23,000,000	6'75
1896-1897	...	...	25,000,000	7'15
1897-1898	...	...	27,000,000	7'07
1898-1899	...	...	28,000,000	7'28
1899-1900	...	...	28,000,000	7'28
1900-1901	...	...	28,000,000	7'14
1901-1902	...	...	26,000,000	6'41
1902-1903	...	...	27,000,000	6'54
1903-1904	...	...	31,000,000	7'12

The amounts actually entered on the Prussian Budgets for the last four years as revenue from the railways, available for ordinary and extraordinary expenses, have been—1900-1901, £27,400,000 ; 1901-1902, £28,950,000 ; 1902-1903, £27,250,000 ; 1903-1904, £24,850,000. The estimate for the year ending March 31, 1905, was £29,400,000.

On these facts it is to be remarked, in the first place, that persistent accusations have been brought in Germany against the Prussian Government that they have worked the State railways more with a view to the production of revenue to meet their own purposes than with a strict regard either to the efficient maintenance of the lines or to the needs of the public.

These accusations have been energetically denied by those concerned in the administration of the railways; but they are, nevertheless, confirmed by some striking statements made by Mr. H. B. Meyer in a series of articles on 'The State Ownership of Railways,' contributed by him to the *Railway Age* of Chicago in 1903. Discussing the physical condition of the Prussian State railways, he declares that the practice of a rigid economy has resulted in the provision of insufficient tracks to meet the volume of traffic, in neglect to bring the road-bed up to the mark, and in the retention of antiquated types both of rolling stock and of hauling, so that blocks occur in the traffic and accidents to trains are more frequent than they should be. 'It would cost,' he says, 'hundreds of millions of dollars to bring the Prussian railways up to the American standard of efficiency;' but the Prussian Government is unwilling, he adds, to incur that expenditure, partly because it fears that the railway surplus may be temporarily impaired to such an extent as to disorganize the national finances, and partly because it appreciates the fact that a railway of the American standard cannot be made to justify itself unless the management shall carry to the utmost limit the policy of charging what the traffic will bear.

The statements made by Mr. Meyer are so serious that one may hesitate to accept them without having confirmation from an independent source. But such confirmation will be found in a report on the 'Coal Industry of the Rhenish Westphalian Provinces' made to the Foreign Office in 1898 by Mr. T. R. Mulvany, H.B.M.'s Consul at Düsseldorf. After speaking of the requirements of the Prussian State railways in rolling stock, 'which,' he remarks, 'have been so much neglected,' he goes on to say:

It would appear that the State railway authorities are awakening to the fact of the necessity of improvement in the construction of the permanent way, which is the inevitable result of the heavier class of locomotives and the higher speeds of traffic. Their attention has been repeatedly drawn to this matter by associations of engineers, men who long since saw that the rails in use were much too light to stand this additional strain; but the danger of the present system has been especially brought home to them by the alarming number of fatal accidents which have taken place through trains leaving the rails, not only at points, but on main lines. The traffic, goods and passenger, has so enormously increased and the requirements are so great that speed has to be accelerated so much that trains approach, enter, or pass through stations, under the use of the automatic brake, at speeds formerly unknown in this country, but still far behind those of England; so that, were it not for the discipline and good management of traffic officials, the number of accidents would be far more alarming than they are. In former times travelling in Germany by rail was notoriously safer than in perhaps any other part of the world.

If the permanent way is in fault, which it appears in a great measure admittedly to be, probably the reason is not to be found merely in the section and weight of rails, but in the mode of spiking them down direct on the sleepers without chairs and side wedges, as used in England, where the rails are said to be heavier; possibly also, a sufficient amount of suitable ballast not being used, the roads are not elastic enough for high speed.

Mr. Mulvany gives some figures showing the especially heavy goods traffic in the Westphalian coal and iron districts, where, in addition, an increasing amount of local and through ('international') passenger traffic has to be dealt with, and he continues:

Many years ago a man who was an authority on industrial and railway matters, foreseeing the development of which the country was capable, advocated the laying down, at least on through-going routes, of four lines of rails—two for goods and two for passengers—so that the fast and slow traffic might be kept separate and distinct. Of course, the adoption of this system, under the greatly increased value of land, buildings, and building sites, would now involve the expenditure of a much larger amount of capital than would have been at that time necessary; but unless canals are constructed to relieve the railways of the heavier portion of the goods traffic, it must doubtless sooner or later be done.

Placed in similar conditions in regard to growth of traffic, the railway companies of the United Kingdom

and the United States have not hesitated to expend very large sums indeed on the widening and general improvement of their lines in order to fulfil their obligations towards the public ; but State control in Germany studies economy, cannot run the risk of interference with State finances, and, instead of bringing the railways up to date, leaves the traders to find relief in a greater resort to rivers and canals !

The outcome of State purchase in Prussia was thus very different as regards the financial results of operating the railways from what the German traders had been led to expect. Nor were the results in respect to a uniformity of rates and charges such as those for which Prince Bismarck himself had hoped.

Theoretically, the basis of railway rates in Germany was that of equal mileage, so that, given the weight, the distance, and the classification, it became—still theoretically—a simple sum in arithmetic to say how much the transport of a commodity from one point to another would cost. In the early days this principle was adhered to with tolerable consistency. But German experience, like that of England, of France, and of other countries, found that equal mileage, as a general practice, was impracticable. Commodities of substantial bulk, but low value, consigned in large quantities, for long distances, could not bear a rate which was as high, in proportion, for, say, the second or third score or hundred of miles as for the first ; so that an ideal uniformity of charge was, in such cases as these, abandoned many years ago in favour of what is known in Germany as a ' Staffel ' tariff—a tariff, that is to say, which is identical with the English practice of reducing the charge per ton proportionately with increased length of haul. The system introduced from Alsace-Lorraine, of paying so much for a 5-ton or 10-ton truck, irrespec-

tive of the value and classification of the consignments loaded into it, represented another deviation from the principle of uniformity. Still more fatal to the maintenance of this same principle was the concession of those 'special' or 'exceptional' rates for export, transit, or other classes of merchandise, under which about 50 per cent. of the total goods traffic in Germany is carried.*

One sees, therefore, how the aspirations even of so determined a statesman as Prince Bismarck had, in the matter of an ideal uniformity in railway charges, to surrender to actual commercial conditions. The theory of an absolute simplicity in German railway rates and charges as a whole cannot, in fact, be maintained; while such 'uniformity' as does exist to-day has been preserved mainly at the cost of free competition.

There lies before me as I write a printed catalogue

* Much detailed information as to the nature of the special or exceptional tariffs in force on the Prussian State railways is contained in the reports on 'Bounties to Ships and Preferential Railway Rates' (C. 8,720) issued by the Foreign Office in 1898. The largest proportion of such rates will be found to have been granted in order 'to encourage exports,' or to insure the transit of merchandise viâ Prussian railways and ports, in preference to the railways and ports of other States or countries. Competition with traffic on the Rhine or other waterways also enters into consideration. The minimum quantity to which preferential rates are applied is a 10-ton waggon-load. Certain rates in respect to coal, coke, and briquettes are granted only when the trader guarantees a fixed quantity per year. Lignite must go in 20-ton lots to get the lowest rates, and the 'contract train' system for coal from Westphalia to Dutch and Belgian ports applies only to consignments of from 200 to 300 tons. Generally speaking, the differential rates are from 50 to 100 per cent. lower than the ordinary rates; but Mr. Mulvany, British Consul at Düsseldorf, writes that while the State railways do encourage export trade and the importation of such raw materials as are indispensable, for instance, for the manufacture of certain classes of pig-iron (thus supporting the protective policy of the Government), this is done 'always with due regard to profits on railway management as a source of revenue to the State.'

of the various tariffs in force either between different railways in Germany or between these and the railway systems of other countries. This catalogue alone represents a foolscap-sized book of 220 pages. With the tariffs in respect to passengers and live stock I have here no concern; but, taking those that refer to general merchandise, I find that the sum total of separate tariffs specified is no fewer than 539. Of these, 243 are domestic tariffs, applying to the different State or private railway systems within the German Empire; 226 are tariffs arranged between German and foreign railways for traffic arising in, or destined for, Germany; and 70 are tariffs which apply to traffic passing through Germany in transit from one foreign country to another. The figure I have given above (539) would seem to represent the number of tariffs still in operation; but in the official catalogue the last of the general merchandise tariffs on the list (from which, presumably, excisions have been made from time to time as new tariffs have taken the place of old ones) is 'No. 1099.' For tariffs relating to coal there is a separate catalogue, which, in the various departments of 'home' and 'foreign,' gives a total of 115.

These figures help also to throw light on the *raison d'être* for the operations of the German forwarding agent. Calling one day on a member of a firm of such agents in one of the leading cities in Germany, I asked him if he would be good enough to justify to me his continued commercial existence. He explained, in the first place, the principles on which a forwarding agent operates in collecting from the public consignments which can be grouped into 5-ton or 10-ton lots for particular destinations; and then he took me to a cupboard occupying one side of his room, threw open the doors, and showed me a long row of bulky volumes, saying:

These represent a mere section of the tariffs for general merchandise in operation in Germany. Look at a map of Europe, and you will see that not only is Germany in herself a big country, comprising various States, but she is surrounded by a number of other countries with which she is in direct trading and railway communication, while a vast amount of traffic passes through Germany from or to England, Russia, Italy, or elsewhere. A forwarding agent in Germany requires to have at his fingers' ends information as to traffic relations with all these different States or lands. I must, for instance, be prepared to advise, if necessary, as to the cheapest route for the sending of a consignment of goods from Stockholm to Naples, or solve some other such problem with which only an expert could deal. The whole business is so complicated—far more so than anything coming within the experience of your average consigner in England—that the ordinary merchant may well prefer to resort to the help of specialists in such matters, apart altogether from the question of any possible saving in cost of transport.

German traders, accustomed to dealing with these said specialists, were, perhaps, less concerned about the realization of Bismarckian dreams of railway tariff uniformity than they were desirous of seeing substantial rate reductions and other advantages to themselves as the result of State purchase.

To give in a nutshell the outcome of the general position in Germany, I would say: The traders engaged in export business have gained very material advantages, by the concession to them of exceptionally low export rates, while the traders who do an exclusively home business are worse off under a State than they would have been under a company régime.

The former, in accordance with the German national policy of commercial expansion abroad, get every possible help and encouragement in the consignment of their produce or their manufactures to foreign markets, the exceptional export rates charged to them being such as will, in most cases, only just cover working expenses. The big returns on railway operation with which successive Chancellors have helped to swell their treasuries come mostly from the home traders.

Experience in Germany has shown that the position of a State railway system in regard to home traders is very different from that in regard to exporters. In the latter case the lines of operation are clearly defined and fairly uniform, the one point aimed at being the improvement of the country's position on certain foreign markets. But in the case of home markets, a State operating its own railways has to deal with a swarm of producing or consuming areas permeated with local jealousies, regarding with bitterness and ill-feeling any advantage secured by one town and withheld from another, and ever clamouring that a State railway should not benefit one district at the expense of another.

In Great Britain or in the United States a railway company will do what it can to foster business on its own network of lines without regard to what another company may or may not do elsewhere. But in Germany a State railway must 'hold the balance,' if it can—or as well as it can—between rival towns throughout the whole of the territory in which it operates. Concessions in one direction will encourage fresh demands or provoke bitter complaints in another, so that, in addition to the disadvantages from which traders must naturally suffer where any alteration in rates is a matter of much State circumlocution, the tendency of responsible railway officials in Germany is not to make any changes in domestic rates at all if they can possibly avoid them. Should they, nevertheless, favour the reduction of a particular rate, it may very well take from six to twelve months (if not still longer) to pass the matter through the various forms of official routine. Even then, when the matter seems to have been satisfactorily settled, word may be received from still higher quarters that, owing to the condition of the

national finances, no further concessions in railway rates can be permitted.*

In the articles by Mr. Meyer already referred to, there is much interesting information respecting the drawbacks German traders have experienced as the result of the State purchase of their railways. Among other testimony, Mr. Meyer quotes a statement made by Mr. Jencke, who was at one time connected with the State railways of Saxony, and afterwards became chairman of the executive committee of Krupp and Co. In Mr. Jencke's opinion, if the chief lines of railway in North Germany had not passed under the control of the Prussian Government, the rates on iron ores from Alsace-Lorraine to the Ruhr district would have been materially reduced. He proceeds :

'There were a number of competing coal-mining, iron-mining, and iron and steel producing localities all depending upon one State system of railways. A reduction in rates given to one district or locality must be followed by counterbalancing reductions in others, in order that no one should be given an undue advantage. The various district railway councils, as well as specially appointed commissions, were constantly engaged upon the most minute investigations into the relative cost of mining coal and iron, and producing pig-iron, at different centres in Germany, with a view to recommending just and relatively reasonable railway differentials, and these investigations inevitably consumed much time and delayed action. Thus the iron interests of the Lahn and Sieg in 1882 had asked for lower rates, and not until 1886 had the Government become ready to act. But the general public itself must share with the State the responsibility of such delays. The jealousy of competing producing regions led each region to dispute the figures as to cost of production put forth by the other regions,

* 'Dans la discussion du budget des chemins de fer [in the Prussian Diet] on a reproché, comme tous les ans, au gouvernement prussien d'absorber pour ses dépenses courantes une partie du boni des chemins de fer, au lieu d'opérer des réductions de taxes ; comme tous les ans il a répondu que la situation financière ne permettait pas de faire d'autres dégrèvements que ceux qui seraient reconnus nécessaires pour développer le trafic.'—*Revue Générale des Chemins de Fer*, August, 1904.

and the Government found it extremely difficult to make an adjustment of rates satisfactory to each party to the controversy. . . . The existing rates had been in force since 1881. In the meantime reductions of all kinds had been effected in the cost of producing pig-iron, so that the transportation charges had come to constitute 25 per cent. of the cost of making pig-iron. That proportion must be contrasted with the 10 per cent. borne by the transportation charges to the total cost of producing iron in Great Britain, Germany's principal competitor in the international markets.'

For no less a period than sixteen years, it seems, the manufacturers in the Ruhr district asked for lower rates for iron ores from Alsace-Lorraine. They failed to get them, because, as the Minister of Public Works stated in the Prussian Diet, the Government would not give any preference to the Ruhr over other iron-producing centres. 'It would not do,' he said, 'to give rates which would allow one district to grow more rapidly than another district. Equal treatment must be accorded to all. The Government could not make reductions which would render it liable even to the suspicion of preferring one district.' So it was that, instead of increasing their supplies of iron ore from Alsace-Lorraine, brought by rail, the Ruhr manufacturers found it better to import raw material from Sweden or Spain, from which countries it could come all the way by sea and river.

That local jealousies or conflicting interests may, again, sometimes be effectually backed up by political influences in the operation of a State railway is shown by another story which Mr. Meyer relates.

In 1888 the representatives of the agricultural interests of Eastern Prussia petitioned the Government to reduce by 66 per cent. the railway rates on grain, which had not been altered since 1877. So high were these rates that the agriculturists of Eastern Prussia could not send grain by rail direct to the great industrial centres on the Rhine. They had to despatch it in river vessels by the

Oder or the Vistula to the Baltic, where it was transferred to ocean-going steamers, which took it to Rotterdam. There it was re-transferred to river vessels, and taken along the Rhine until some point on the river was reached that would be comparatively near the town to which the grain was destined. Then, at last, it would be loaded into railway waggons, and so conveyed the remainder of the distance. But this roundabout route was found to be cheaper than if the grain had gone all the way by rail.

At first the Government declined to make any reduction in rates, on the ground that their doing so would constitute an inequitable departure from the railway department's scheme of uniform rates, since it would benefit the landholders of Eastern Prussia at the expense of those of Central, Western, and Southern Germany, whose markets would thus be opened to Eastern grain. But in 1891 extended crop failures induced the Prussian Government to lower the rates on grain and flour in the interests of the mining and factory population of the Rhine provinces, and there was an immediate and substantial increase in the quantities of both grain and flour sent by rail. Thereupon the Government of Saxony protested that the farmers and millers of that State ought not to be exposed to the competition of Prussian farmers and millers, and finally, in 1894, the Governments of Saxony, Baden, Württemberg, and Bavaria notified the Prussian Government that, unless the reduced rates on grain were discontinued, their representatives in the Reichstag and in the Bundesrath would not vote for the Imperial Bill authorizing a commercial treaty with Russia. The rates were then restored to the point at which they had been fixed in 1877.

The combined result of (1) the inadequate develop-

ment of the Prussian State railways; (2) the iron-bound system of domestic rates and charges thereon, owing to local jealousies and political pressure; and (3) the desire of the Prussian Government to secure as substantial a revenue from the railways as practicable, has been to drive the German traders more and more to the use of the waterways wherever this alternative was open to them. For a variety of reasons it was to the direct advantage of the Government to encourage them in so doing. A greater resort to the waterways meant that the traders of the country would be rendered less exacting in regard to those demands for reductions of railway rates which the various conditions already narrated made it sometimes so difficult, if not impossible, to grant. With, again, the carrying on the waterways of a considerable proportion of the heavy traffic that would otherwise go by rail, or not at all, the risks of congestion on the railways were decreased, and there would be a less urgent need for the expenditure of such large sums of money as those suggested by Mr. Meyer for bringing the lines up to date and providing for the natural growth of traffic—an expenditure which must have interfered seriously with the balances that were rendering the Government so far independent of Parliamentary votes. An active waterway development policy, for which generous supplies could be secured, suited the ideas of the Government much better than an active railway improvement policy, which might have absorbed the very convenient sources of revenue the Government found in the railway profits.

So, as I have said, the German trader was left to find relief in a greater resort to the waterways, the expansion of which during recent years has been far in excess of the growth of the railways. Since 1875 the traffic per ton per mile on the railways has increased only from

410,000 tons to 740,000, while the corresponding increase on the waterways has been from 290,000 tons per mile to 1,150,000.

It may well be that the waterways, as the result of the very substantial expenditure on their increase and betterment, have created a good deal of fresh business for themselves. It is no less certain, however, that they have diverted a good deal of business from the State railways, besides absorbing the increased business the railways would otherwise have done. This fact is brought out very clearly by Herr Franz Ulrich in his book on 'Staffeltarife und Wasserstrassen' (Berlin: Julius Springer). The author shows in great detail how enormously water carriage has grown within the limits of the German Empire, such growth relating not only to raw materials and heavy goods, but to general merchandise as well. He further explains, however, that the business done is not so much new traffic as traffic that was formerly carried by the railways, which are now being reduced to the original position of railways, as mere feeders of water transport. They take the minerals, the produce, and the merchandise to a convenient river or canal, and then, after the long haul has been done by water, they meet them again, and convey them a few miles inland to their final destination. A six weeks' frost may, however, as Herr Ulrich further points out, entirely upset this arrangement in a district where half the traffic is generally carried by water and half by rail. The entire quantity will then be thrown on the railway, which may have rolling stock sufficient only to meet normal conditions, the result being that blocks occur, manufactories are stopped, and other inconveniences arise which would not have happened had the railways been previously entrusted with the entire business, and made provision accordingly.

In contrasting the attitude of the State towards railways and waterways respectively, Herr Ulrich gives some very definite reasons for the differences in the rates. As regards railway rates, these are made not only to cover working expenses, maintenance of road, and interest on cost of construction and sinking fund, but also, in Germany, to meet the very large expense incurred in carrying gratis, or almost gratis, for the State, mails, parcels, military stores, etc., and, finally, to pay over to the Exchequer a large surplus, which is assumed to be in relief of taxation, but which also serves the special purposes of Government already indicated. The canal charges, on the other hand, are intended to cover nothing but actual cost of carriage. Not only is the waterway proper constructed or improved at the cost of the State, but the annual expenditure on dredging, lighting, buoying, superintendence, etc., is also covered by the State, while the cost of the inland harbours—which correspond to railway-stations—is paid out of either the State funds or the local rates.

The final outcome of the position is that, while the State makes, and retains for State purposes, large profits on railways operated on economical and non-progressive lines, it is out of pocket as regards the working of the canals and canalized rivers. Under these circumstances, Herr Ulrich considers it is absurd to compare railway rates and canal rates, and to assert, because the latter, at first sight, appear to be lower, that canal carriage is therefore economically cheaper than railway carriage.

In any case, one sees that the wonderful development of water transport in Germany, of which so much is heard, has clearly been at the expense, on the one hand, of the general taxpayer, and, on the other, of the State railways, which have suffered an arrested development, and seem likely to become, ere long, carriers only of

passengers and 'express' or 'Eilgut' merchandise, the ordinary goods traffic of a 'not urgent' character being left to go by water.

This outcome of the State management of railways in Germany is the more striking, because in America the Illinois Central and the other railways operated by private companies in the districts concerned have, in fair and open competition, absorbed almost the whole of the enormous volume of traffic that was once done by steamer or barge on the Mississippi. By lowering their rates to practically the same level as the river rates, by offering what was naturally a much quicker service, and by building branch lines so as to collect the traffic in the centres where it originated, they got into their own hands nearly all the business except that of a specially heavy or exclusively local type, and in this way they insured the prosperity of what are now among the most successful lines of railway in the United States.

Of Hungary, where the extension of the national railway system has proceeded side by side with the increased facilities in river navigation, the Commercial Attaché to the British Embassy in Vienna writes:

Cheap rates, granted by the railways, have attracted a good deal of tonnage, which probably would otherwise have been carried by river, so that it may be said that the shipping traffic on Hungarian rivers has not yet developed in proportion with the increased facilities in navigation caused by modern river regulation works.

But in regard to Germany Mr. Meyer declares:

So far as the development of industrial Germany depends upon long-distance traffic in comparatively low value, bulky articles, or upon traffic in articles of any kind that must be sold on a narrow margin of profit in the international market, her salvation was, and still is, the waterways. . . . Were it not for the waterways, modern Germany could not have come into existence, unless, indeed, the railway department had long since abandoned entirely its efforts to adhere to an inflexible scheme of rates.

Whatever, therefore, the gain to the State from its purchase of the railways and their conversion into a revenue-earning machine, and whatever the advantage from the point of view of national defence, the benefits which the German traders have derived—except in the matter of increased facilities for sending their surplus stocks to foreign countries—are by no means obvious, and British traders can be left to decide for themselves whether, from their point of view at least, and apart from academical arguments about State ownership and State control, the British system of railway management, with its competition and its greater elasticity, is not the better of the two, or, in any case, the one that is better adapted to British conditions.

CHAPTER XVII

THE RAILWAYS OF HOLLAND

NOT only does the story of the Dutch railways present considerations that are absolutely unique in respect to the severity of the water competition they have had to encounter from the earliest moment of their existence, but the peculiar conditions under which the railways themselves have been called into being constitute a veritable romance, and one that is of the greater interest to ourselves in view of the important rôle our own countrymen have played therein.

Holland, as everyone knows, is a land of waterways. On the one hand, there are the great rivers which form channels of communication with Germany, Belgium, and the countries beyond—rivers on whose broad expanses great volumes of traffic pass between North-West Europe and the uttermost parts of the earth, without touching the railway at all. On the other hand, the physical conditions of Holland have led to the whole country being permeated by a network of canals, a large proportion of which, though intended primarily for purposes of drainage, are equally available as a most effective means of transport. Long before railways were created, the rivers passing through Holland carried transit merchandise at rates with which it seemed impossible that any other mode of conveyance could compete; and though to-day the country is well

supplied with railways, over 90 per cent. of the sum total of the goods traffic still goes by water. From Amsterdam alone there are no fewer than 150 separate lines of small steamers going regularly to every part or corner of Holland which is available for vessels of only 6 or 7 feet draft—and there is, indeed, scarcely a town or a village in the entire country that cannot be so reached. Between Amsterdam and Rotterdam there are boats which leave either place at eight in the evening, pass along the canals at night, and deliver their consignments the next morning. The railways themselves could not hope to do any better, and, with their much heavier expenses, they cannot compete with the waterways for local traffic such as this. The co-operative fruit-growers' association at Beverwijk has two steamers of its own, and these, in the season, make two, three, or even four journeys a day along the canals to take the fruit to the Amsterdam markets, 15 miles away. In Friesland, after the dairymaids have milked the cows, they put the churns in a boat, and row off with them to the central butter-making factory of their district. A man removing his household effects from one house, or from one part of Holland, to another would not dream either of hiring a furniture van or of patronizing the railway. Wherever he lived he would be within easy reach of a canal, and he would find it an easy matter to get his furniture carried to a boat in which it could be conveyed to within what would again be convenient carrying distance of his new home.

Such conditions as these affect almost every phase of business and social life in Holland in regard to matters of transport, and in the circumstances it is not at all surprising that the railways should get scarcely 10 per cent. of the goods traffic. They would probably have

still less but for the fact that they keep their rates down—and necessarily so—to the lowest point on which a bare profit can be made. There are, however, certain considerations which tell in their favour, and help them to secure a modest dividend—(1) they can offer what is, in most cases, a quicker service—a matter of special importance in the case of urgent goods or perishables; (2) they handle a good deal of ‘international’ traffic, the rivers notwithstanding; and (3) the freezing over of the waterways in severe winters drives on to the railways a large amount of business which they would not otherwise get—if not, indeed, a great deal more than they can well manage.

It will readily be admitted that, under the conditions here indicated, he must have been a bold man who originally proposed to build railways in Holland at all. The actual pioneer was none other than the ruler of the country in these days—William I. Farseeing and patriotic, he realized as early as the year 1832 that Holland would never be able to hold her own, especially in regard to international traffic, if she were to remain content with her waterways, and neglected to adopt that newer system of land locomotion which, though still in its infancy, was giving promise of great results in England. What he especially desired to see was a line of railway from Amsterdam to the frontier, connecting with a German line thence to Cologne; and in 1833 he had the plans for such a railway prepared. When, however, he tried to raise the capital necessary for the carrying out of his scheme, he failed, and the earliest line constructed in Holland was one from Amsterdam to Haarlem. Begun in 1836 by a private company, it formed the first section of a line of railway subsequently extended by the Holland Iron Railway Company (Hollandsche Yzeren Spoorwegmaatschappij,

founded 1837) from Haarlem to the Hague and Rotterdam.

William I. was in no way disposed to abandon his ideas. In 1836 he instituted a commission which was to consider—(1) the desirability, or otherwise, of constructing railways in Holland at all; (2) in the former case, which routes should be taken in hand first; and (3) whether, and, if so, how far, the State should support the building of railways. The commission reported in the affirmative on the first proposition; they recommended the construction of a line from Amsterdam to Arnheim, to be continued, subsequently, to the German frontier; and though they held that, as a general principle, railways should be left to private enterprise, they advised that the cost of the line in question should be defrayed by the State. A proposition to this effect was brought before the States-General, but was rejected by forty-three votes to two, the minority consisting of the Minister in charge and the burgomaster of Arnheim, who was a member of the House.

One cannot blame the States-General for the action it took, inasmuch as even railway men in Holland to-day confess that in 1836 the outlook there for railway enterprise must have been absolutely hopeless, and the scheme of William I.—in the lack of any prospect of adequate traffic—altogether impracticable from a commercial standpoint. All the same, the King had the strength of his convictions, and he resolved to see what could be done with the help of his private purse. The cost of constructing the suggested Amsterdam-Arnheim railway had been estimated at 9,000,000 guilders (£750,000), and a loan to this amount was raised on William I. personally guaranteeing the payment of interest thereon at the rate of $4\frac{1}{2}$ per cent.

So the line in question was begun, and, though the States-General had refused to vote the supplies, they raised no objection to the Government officials helping the King in the work of construction, and, later on, in the responsibilities also of general control of operation. By the time, however, that the line had reached Zeist-Driebergen—a few miles east of Utrecht—over 10,000,000 guilders had been spent, and a further sum of 2,000,000 guilders was required, representing (in pounds sterling) a total of £1,000,000, as against the estimate of £750,000. Before he died William I. had paid out of his private purse no less a sum than £100,000 for interest on the money raised, and this had represented an absolute loss for him, inasmuch as he had retained no lien of any sort whatever on the railway.

The King had been, in effect, his own general manager, with the Minister of the Interior and other Government officials as heads of departments in the operation of the line, the management of which speedily drifted into a condition of hopeless inefficiency. The working of the various railway-stations had, for instance, been entrusted to local carrying firms, who assumed full responsibility for the traffic in their district, while still carrying on their own businesses. At the instigation also of Government officials a great waste of money resulted from the running of trains in excess of actual requirements.

In 1844 the new King, William II., appointed a further commission to decide as to the future of the then still uncompleted line, and this commission, in the report it presented the following year, advised that the undertaking should be transferred to a private company. A concession of the line was then granted to a syndicate consisting of seven firms or individuals, namely: L. J. Enthoven and Co., Gower, Nephews, and Co.,

Thomas Wilson and Son, Frederick Ricketts, W. J. Chaplin, M. Uzielli, and C. Devaux. Of these seven, the five last mentioned represented British capitalists. The same syndicate also obtained the concession of an extension of the Amsterdam - Arnheim line to Emmerich (thus completing the connection with Germany), and also of a branch line between Utrecht and Rotterdam. These various concessions the syndicate transferred to the Dutch-Rhenish Railway Company, which was formed with a share capital of 24,000,000 guilders (£2,000,000). Nine-tenths of this amount was raised in Great Britain, mainly through the instrumentality of Sir Thomas Moss, a Liverpool banker, then in close touch with the financiers of Amsterdam.

It was under no specially hopeful conditions that the Dutch-Rhenish Company (so called because the lines ran parallel with the river Rhine for some distance) started work in 1845. Not only had the previous management been deplorably defective, but the lines had been badly laid, and they were also broad gauge lines, so that the rolling stock could not run on to the German lines, and through traffic without transshipment was impossible. All the rails required to be relaid, and fresh rolling stock would have to be provided, while in the meantime the company must pay £34,000 a year as interest on the original loan of 9,000,000 guilders and supplementary loans of 2,500,000 guilders. The net earnings of the railway, as far as it had then been constructed, barely sufficed to cover interest on the heavy debt, to say nothing of the cost of improving the old lines and building new ones.

Much friction arose between the company and the Government concerning the serious blunder in the gauge of lines of railway which had been specially

designed to facilitate international traffic. At first the Government refused to accept any responsibility, but afterwards they agreed to pay 1,000,000 guilders (£83,000) towards the cost of relaying. The reconstruction was then done, the branch lines (including one from Woerden to Leyden) were made, and by 1856 the entire network between Amsterdam, Leyden, the Hague, Rotterdam, and Emmerich (with Utrecht as the headquarters) was completed.

Some degree of progress had thus been secured, but the operation of the line by Government officials still prevailed, while, though the system had been finished, the amount of traffic was deplorably inadequate. A report on the general position and prospects of the system, drawn up by two English experts—Mr. A. C. Sherriff and Mr. Braithwaite Poole—led the company, in 1857, to invite Mr. James Staats Forbes—who had already made his mark on the Great Western Railway in England as a railway man of much skill and capacity—to go to Holland and reorganize the working of the lines. A free hand was given to him, and it was not long before he had gathered around him a group of chief officers of exceptional ability. In 1858 the group was joined by Mr. D. G. Bingham, another Great Western man, whom Mr. Forbes appointed as chief goods manager, and who to-day still lives at Utrecht, the sole survivor (though an extremely active one, in spite of his seventy-five years) of the little band of chief officers, solicitors, and financiers who were directly associated with the company at the period in question.

Inefficient had thus at last been succeeded by efficient management, but the lack of business still presented itself as one of the most formidable of difficulties. The railway had been allowed to get into thorough disrepute. It had neither capital nor credit; it provided

practically no accommodation, and was regarded with general antipathy; the traffic, local or international, was all going by water (transit traffic by railway was, in fact, a development still to be created), and 700 trucks, for which no use could be found, stood rotting and rusting on the sidings at Utrecht. The only bit of luck the line got was when low water in the rivers or ice on the canals drove the traffic on to the railways in such volume that the company could refuse to take anything that did not pay 'Eilgut' rates. These times of golden harvests, however, came but seldom, and altogether the situation was one that might well reduce the little band of English and Dutch officials and their financial supporters almost to despair. The £20 shares, on which only £9 had been paid, were regarded as 'worth less than nothing,' for they carried an £11 liability, of which many of the holders were only too anxious to be free. There may be exaggeration in the statement that 'a wheelbarrowful could have been had for the asking, on payment of the transfer fee'; but it is a literal fact that at one meeting of the company held at this period handfuls of shares were flung about the room as so much waste-paper.

Meanwhile there were ripening in other directions events that were to convert these apparently worthless shares into a valuable property, and insure for the Dutch-Rhenish Railway not only a prosperous future, but developments which constitute a noteworthy factor in the history of railway operation in general.

In 1857 (the year when Mr. J. S. Forbes went to Holland) the Westphalian coalfields were still in their infancy, for they were producing only 5,000,000 tons a year, as compared with 70,000,000 tons at the present date. One of the most active of the pioneers there was Mr. William T. Mulvany, who had formerly held the

position of Commissioner of Public Works in Ireland, but had resigned his post owing to some disagreement with his superiors, and gone to Germany, where he was much impressed by the evidence then already forthcoming as to the magnitude of the Westphalian coal-supplies. He formed the Hibernia and Shamrock Coal Companies for the purpose of working two of the mines—the Hibernia at Gelsenkirchen and the Shamrock at Herne—and it was not long before he and Mr. James Staats Forbes were considering the possibility both of fighting the water competition and of securing a good market for Westphalian coal in Holland, by the transport thither, by rail, of large consignments at exceptionally low rates.

As goods manager of the line, Mr. Bingham went most carefully into the problem, and found that a rate of 1 cent (equal to one-fifth of a penny) per ton per kilometre would suffice to cover all charges of transport (including haulage, wages of men at level crossings, and every other expense), provided that the railway company were supplied with 200 tons of coal per train, in twenty waggons each loaded with 10-tons. This represented the freight in the one direction—from Westphalia to Holland. In the opposite direction the coal waggons could be filled up, say at Rotterdam, with iron ore from Spain for the ironworks in Westphalia, and it was found that, in the circumstances, the company could afford to carry the back-loading of ore at a charge which worked out at 1s. 3d. per ton for the entire journey of 150 miles. It was understood, however, that in regard both to the coal and the iron, the railway company would not undertake either loading or unloading. All they would do would be to provide rolling stock and haulage.

Such was the basis of the arrangement entered into

between Mr. Forbes, on behalf of the Dutch-Rhenish Railway Company, and Mr. Mulvany, as Chairman of the Hibernia and Shamrock Coal Companies. Mr. Mulvany further undertook to consign a minimum of 200 tons of coal per day six days a week, being at the rate of over 62,000 tons a year; and inasmuch as the ironworks in Westphalia immediately adjoin the collieries, the ironmasters, in view of the favourable terms for iron ore, were quite willing to accept delivery there, and themselves arrange both for unloading and for cartage.

The principle on which the agreement was based was, of course, the one that when a railway company simply hauls a fully-loaded train from one point to another, the proportionate net cost is reduced to a minimum; and when a good distance is covered the rate per ton can well be reduced to a figure which would be absolutely unremunerative in the case of a train composed of waggons picked up at different stations, and representing a considerable amount of extra labour. These ideas, well recognised later on, were quite new as adopted in the fifties by the Dutch-Rhenish Railway Company, which, under the stress of adverse circumstances, thus became a pioneer in a phase of railway operation that has played a very important part in recent transport developments.

The making of the said agreement was, however, insufficient in itself to afford an immediate solution of the problem which the general position of affairs presented. The collieries were prepared to supply, and the railways were willing to give special rates for carrying, a complete train of 200 tons of coal per day. But what about the disposal of the coal when it reached Holland?

At that time most of the coal consumed in towns on

the coast, and especially the coal required at the ports for the shipping, came from England. The inland towns were supplied mainly with inferior qualities of German coal, which reached them by water. It was hoped to gain acceptance, in each instance, for good qualities of Westphalian coal brought into Holland by train, and delivered wherever wanted. But the agents and coal merchants, who were themselves satisfied with the good profits they were making under existing arrangements, did not regard the new proposals with favour, and for a time it looked as if the agreement between the collieries and the railway would remain a dead letter. A good order was obtained from the Imperial Continental Gas Company, an English company established at Rotterdam and Antwerp, the supply of whose requirements formed, at first, the mainstay of the new scheme. But it was found imperatively necessary that a larger business should be worked up if the Dutch-Rhenish line was to be helped out of its difficulties.

In the circumstances the railway company adopted an expedient which still remains, probably, unexampled in railway history. It not only permitted but directly encouraged its officers and officials to combine with their ordinary duties the business of coal dealers, retaining for themselves whatever commission or profits they could make therefrom, while at the same time increasing the coal traffic on the railway. Station-masters especially all over the line were told to get from the local residents—discreetly, of course—all the orders for coal they could secure, and some entertaining stories are related as to the sort of thing that went on. A station-master, seeing a well-to-do citizen on the platform with his wife, would go up to him, and, after a very respectful greeting, would say: ‘Ah, I see that you have Mrs. —— with you.

Allow me to give you a compartment to yourselves. Then he would show them into one, fasten the door, and instruct the guard of the train to put no one else in, renewing his polite greetings as the train moved off. What followed, presumably, was that husband would say to wife, or *vice versa*: 'A very civil fellow, that station-master. See, he deals in coal. Suppose we send him an order for 5 tons?' And so the thing would be done. The station-master would pocket a commission, and there would be still another 5 tons for the railway company to carry—if, indeed, the company had not already got a large supply on hand dumped down on the station premises.

On one occasion Mr. Bingham, in looking over the returns, noticed that there was a certain station to which the company were not sending any coal. He asked the reason, and was told that the station-master lacked enterprise, and did not care to take up the business. Mr. Bingham set off for that station at once, interviewed the station-master, and talked to him like a father. 'You don't receive much in the way of salary,' he said, 'and you have a wife and children to keep. Why don't you get orders for coal, and secure the nice little addition to your earnings that you could very well make? I'll have 10 tons sent on to you, and you will see what you can do with them.' The coal was sent, the station-master sold it, wanted more, and before long had followed the example of many another official on the line in working up a remunerative little business of his own.

The acquiring of traffic for the railway under these conditions was slow work, and required indomitable energy and perseverance on the part of those concerned. But the desired result was gained all the same. The efforts of the railway officers were seconded by

those of Mr. W. C. Robinson (now His Majesty's Consul at Amsterdam), who was sent to Holland in 1859 by the Hibernia and Shamrock Coal Companies to represent their interests on the spot; and, as time went on, the domestic business increased, more gasworks were captured, industrial establishments followed, and eventually a good share was secured in the trade in bunker coal at the ports. Under the special conditions already described—that is to say, train-load consignments from point to point, with loading and unloading by the traders themselves—it was found possible to carry 200-ton lots at rates that enabled the railway to hold its own even against the waterways. There was this further advantage, also, that whereas the trader who got his coal by the waterways had to take a barge-load at a time, and keep a large supply on hand, occupying a good deal of space, the trader who received his supplies by rail could have a 10-ton truck day by day or week by week, according to his requirements. This advantage compensated for any difference there might still be between the rates by rail and those by water.

In the result the traffic in Westphalian coal was the salvation of the Dutch-Rhenish Railway Company. A line which had been almost derelict was made thereby so prosperous that there came a time when the dividends were within a fraction of 10 per cent. The shares, which had been flung about as worth 'less than nothing,' increased so much in value that they once touched 159 per cent. As for the coal business, pioneered amid so many difficulties by Mr. James Staats Forbes, Mr. Mulvany, Mr. Bingham, and Mr. Robinson, the magnitude of its growth is sufficiently indicated by the fact that in 1904 there were brought into Holland by rail no fewer than 2,000,000 tons of coal, as against the 62,000 tons a year provided for in the original contract.

To the further history of the Dutch-Rhenish Company I shall briefly revert later on. It is necessary now to look at what was being done in other directions for the development of railways in the Netherlands.

About 1859 or 1860 the fear began to be generally entertained in the country that unless Holland secured for herself an adequate network of railways she would assuredly be left behind in the commercial struggles of the nations, and run the risk of becoming little more than an enlarged group of such 'dead cities' as those which then already existed on the shores of the Zuider Zee. At that time there were only three railways in Holland of any importance: the Dutch-Rhenish; the Holland Iron Railway, connecting the towns of Amsterdam, Haarlem, Leyden, the Hague, Delft, and Schiedam; and the Grand Central Belge, which ran from Rotterdam to Antwerp and Belgium, but was not directly connected with the system of either of the other companies. All three lines, in fact, were isolated, and all three had a great struggle for existence, especially from the point of view of the active water competition. From various parts of the country, however, came a bitter cry for increased railway facilities. The north-eastern provinces had no railways at all. Their wants were supposed to be provided for by a service of diligences between Amersfoort (the furthest point in this direction then reached by the railway) and Zwolle. Lines were wanted also north of Amsterdam, to give to the aforesaid 'dead cities' the new life they have since received.

It was, however, too much to expect that commercial companies would face the disadvantageous conditions to be encountered in supplying the whole of Holland's requirements in the matter of railways. The country may be one of no gradients and no tunnels, but the

railways were costly to construct on account of both the numerous bridges and the difficulties in the way of obtaining sure foundations. Between Amsterdam and Rotterdam alone there are about eighty railway bridges, of which eight are swing bridges. In various instances railway bridges crossing the rivers in Holland are, in effect, railway viaducts, a mile or so in length. Works of this costly type were not likely to be undertaken by private companies which, when the lines were completed, would still have to compete keenly with the waterways for the very small proportion of the traffic they were likely to get.

In the circumstances it became evident that if Holland wanted more railways the State itself would have to provide them, and this, in 1860, it decided to do. A number of lines were built by the Government, who also bought up various small lines constructed by minor companies which had got into difficulties. But the Government were opposed to the idea of operating the State lines themselves, and in 1863 there was created a 'Company for the Exploitation of the State Railways,' which (the State having provided permanent way and buildings) was to find rolling stock and personnel, and undertake the general working of the lines. In 1890 the Government bought up the Dutch-Rhenish Company, paying at the rate of £24 each for the £20 shares, giving generous compensation to those of the officers who did not wish to remain in the service, and assuring to those willing so to do a continuance of all the 'trading' facilities they had previously enjoyed under the régime of the company.

In this same year (1890) a new arrangement was made, under which the operation of the State lines was divided between the Company for the Exploitation of the State Railways and the Holland Iron Railway

Company, which latter company had already made considerable additions to its own system. The total length of State lines now controlled by the Exploitation Company is 890 miles. The Holland Railway Company operates 205 miles of State lines, 165 miles of its own lines, and 290 miles of lines owned by other companies—a total of 660 miles. The Government also gave to each of the two companies running powers over the lines of the other, when necessary to enable it to reach any town to which it would otherwise not have access. In this way there is always an ‘alternative route’ available either to any point within the country or to any destination beyond, and such is the competition, in respect to service, between the two companies that even second or third rate places in Holland are provided with a number of quick trains much in excess of what they would be likely to get if the whole of the lines were worked as a State monopoly, and the amount of traffic were alone considered. A further result of this competition in service between the two companies, coupled with their joint competition with the carriers by water, is that ordinary goods are carried on the Dutch railways with a speed and promptness for which traders would be charged ‘Eilgut’ rates in Germany, or ‘Grande Vitesse’ in France.

Each company pays a fixed rental for the State lines it operates, recouping itself by the fares, rates, and charges which it imposes according to scales authorized by the Minister of Railways. The rental paid by the Exploitation Company comes to £306,045 a year, and that paid by the Holland Company is £40,083—a total of £346,218. In addition to this, each company is required to give the State a share in its profits, fixed on the following basis: When the company pays a dividend exceeding 4 per cent. per annum, the State is to have

half the sum available over and above such 4 per cent. ; while of any balance after the payment of a dividend of $6\frac{1}{2}$ per cent. per annum, the State is to receive four-fifths and the shareholders one-fifth. Should the dividend fall below $3\frac{1}{2}$ per cent. for two years in succession, the company can withdraw from its contract. The State, on the other hand, can take over the operation of its own lines at any time, subject to not less than one year's notice.

The dividends actually paid by the two companies in recent years have been as follows :

Company.	1899.	1900.	1901.	1902.	1903.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
State Lines Exploitation Company	5	5	4'75	4'75	4'6
Holland Railway Company	$4\frac{1}{2}$	4	3'185	4	4

From the Holland Railway Company, therefore, the State has received nothing since 1899 in the way of profits (in addition to rental), while the payments made on this score by the other company have been far from substantial, the total for 1903 being only £9,470. In effect, the actual return which the State Treasury gets on the £28,000,000 it has invested in the railways of Holland is a fraction under $1\frac{1}{4}$ per cent. All the same, the fact that the State has sunk so big a sum in the lines—and is content with a return thereon which would make ordinary shareholders feel depressed—puts the companies themselves in a better position with regard to those rates and charges which, as we have seen, must necessarily be kept at an absolute minimum if the railways are to secure even a 10 per cent. share of the ordinary goods traffic.

I have now, I think, clearly shown that the exceptionally low rates charged on the Dutch railways are due to a variety of conditions and circumstances which render them alike possible and inevitable, but which are not comparable with the conditions and circumstances of other countries. There is still one further point in this connection to which I would allude. In the chapter on 'General Continental Conditions,' I have shown that Dortmund and other manufacturing centres in Germany are nearer to the ports of Holland than they are to Bremen or Hamburg, and that the rates on the Prussian railways are fixed on a basis by which it is sought to secure the export traffic from the places in question for the German ports. The Dutch railways must not charge more, if they wish to retain a good share in the business (assuming that the shipping conditions are equal); but when the Prussian railways want to retain the traffic for themselves they naturally decline to help their competitors by giving specially low rates from Dortmund and the other districts concerned to the Dutch frontier, so that the whole of the reduction on the transit and export rates, *viâ* Holland, may have to be made by the Dutch lines in respect to the section of the journey from the frontier to Rotterdam or Amsterdam. In these circumstances rates that have already had to be kept exceedingly low by reason of the water competition become even lower, and reach a point that leaves scarcely any margin at all for profit.*

* The water competition in Holland has been still keener of late years through the opening of the Merwede Canal, along which strings of barges, with a carrying capacity of anything from 500 to 2,500 tons, are constantly passing between the port of Amsterdam and the river Rhine. For coal transported by water from Ruhrort to Rotterdam the present rate works out at 7d. per ton for the entire distance.

The moral of the story I have here sought to tell I prefer to give, not in my own words, but in the following extracts from a memorandum,* written in 1901, by Mr. W. C. Robinson, our very able Consul at Amsterdam, and, as I have already shown, one of the pioneers in that Westphalian coal enterprise which set the Dutch-Rhenish Railway Company on their feet :

Within certain limits the railway companies [in Holland] are in many cases in a position to establish tariffs which railways constructed by private capital could only charge at a loss, seeing that the companies working the State lines have not to provide anything for interest or sinking fund on the capital expended on lands, permanent way, or buildings. The reduction of rates is practically limited by the actual cost of transport only. . . . Any comparison between the conditions of rail and water traffic in Great Britain and those which exist in Holland must be illusory, owing to the great differences in the circumstances affecting those modes of transport in both countries.

As regards the light railways which, passing along the public highway, are extensively used in Holland for the conveyance of agricultural produce to the towns or to the ports, I might state that financial assistance towards their construction is rendered by the State, the provinces, and the municipalities, each proposed line being considered on its merits. The said assistance is generally given in the way of a loan, with or without interest, or a subscription for shares. Free grants of land are also sometimes made to the concessionnaires operating the lines, especially in the case of communes desirous of having a station or a stopping-place within their boundaries.

* See ' Reports from His Majesty's Representatives on Navigable Inland Waterways in Austria-Hungary, Belgium, France, Germany, and the Netherlands ' (Cd. 1,636).

CHAPTER XVIII

THE RAILWAYS OF BELGIUM

THE first project for the building of a railway in Belgium was brought before the Government in 1830, and two engineers were despatched to England to study the subject of railway construction. In February, 1832, these two engineers, as the result of their investigations, recommended that a railway should be laid between Antwerp and Cologne. Sanction was given, instead, to a scheme for a railway between Antwerp and Liége ; but even this modified proposal could not then secure adequate support.

Meanwhile Leopold I. had been elected King of the Belgians, and in him the railway movement had an earnest supporter. At that time most of the traffic between England and Germany was still passing through Holland by way of the rivers and canals ; but King Leopold foresaw that if Belgium provided herself with an adequate supply of railways she might tap a good deal of this traffic, if only because of the greater speed at which it could then be carried. His views were endorsed by the Chambers, which, in 1834, agreed to the construction by the State of a line from Malines in the direction of Verviers (close to the Prussian frontier), with branches from Malines to Antwerp, Brussels, and Ostend respectively. The section between Malines and Brussels was opened in 1835.

Other lines followed, and by May, 1840, the railways in operation represented a total of 200 miles. The whole of these were State lines. When, however, the Government proposed to build still more, the Chambers refused their consent. Owing to the competition, not alone of the Dutch waterways, but also of those that permeated Belgium in every direction, the rates on the railways had had to be kept very low from the start, and the financial results were so disappointing that the Chambers would not then sanction the spending of public money otherwise than on such main routes of traffic as those for which provision had already been made. If private enterprise were willing to run the risk of constructing secondary and local lines, concessions should be made to the companies that might be formed; but the State itself (as the Chambers declared) was to build no more.

Private enterprise was not backward in availing itself of the opportunities thus offered, and from about 1842 concessions were given to a number of individuals or companies, considerable additions being made to the railway mileage during the next few years. By 1859 the concessions so made had reached a total of twenty-three. But some of the companies had already drifted into financial difficulties, and the State had had to go to their assistance by guaranteeing them the payment of their interest on capital, or by undertaking the operation of the lines in return for a fixed rent or a share in the receipts. Help of this kind had especially been rendered necessary by the political crisis of 1848.

The companies, however, made good progress in spite of their difficulties and disadvantages, and in course of time they became formidable competitors of the State system. Notwithstanding the decision arrived at in 1840, the State had certainly, by 1870, increased

its railway mileage to 535 (though most of these extensions were made prior to 1850); but the extent of the companies' lines in 1870 represented a total of 1,510 miles. While, again, it had been assumed that the private lines would be only secondary or local railways, the effect of their combined operation was to give them a good share in the through traffic as well.

Following on this unexpected outcome of the position, the administrators of the State system found themselves practically powerless. They had lost their former control of the railway situation, and so far back as 1856 'rate wars' had been waged between themselves and the companies. Crude as the schedule rates were, these were abandoned even by the State system, which, in fact, went to even greater lengths than the companies in conceding special terms to individual traders, or making preferential contracts in every shape and form; so that, low as the rates had originally been, they went lower still as the outcome of the direct competition between State-owned lines and State-conceded lines. The reductions were 'astonishingly rapid' at this particular period, especially as regards heavy classes of freight brought into and carried across Belgium from Germany or elsewhere.

In effect, the general position came to this: the State had the better routes, but the companies had the better management; and the only way in which it seemed possible to equalize matters was by the Government buying out the companies, and adding their lines to the State system. There were other reasons, too, for the adoption of such a course. Fears had arisen that the political situation in Belgium might be compromised through the purchase of her privately-owned railway systems by foreign, and especially by German, financiers. So in 1870 the Belgian Government in-

augurated their scheme for the acquirement by the State of all the chief lines of railway in the kingdom. They were particularly active in 1873 in the carrying out of this policy, with the result that by 1874 half the railway mileage in the country was State property. By 1880 the proportion had increased to two-thirds. To-day the State operates over 2,500 miles of railway in Belgium, and private companies only 280 miles.

When the State obtained supreme control over the railways of the country it maintained the rates and charges at the same low level, for a twofold reason: (1) National policy suggested that, even though the taxpayer might have to make up the difference, every possible encouragement should be offered for the expansion of local industries in the interests of an essentially industrial community. (2) Railway policy had demonstrated that in regard to the bulk alike of domestic and of transit traffic higher rates could not be charged without the risk of driving the business on to the rivers and canals. The competition between State lines and private lines had been brought to an end, but that between railways and waterways continued.

One of the leading factors in the situation, from both of these points of view, was the port of Antwerp. The struggle for the transit traffic of Europe, which Leopold I. had foreseen, was in full course of development, and the Belgian Government were straining every nerve to secure for the port of Antwerp as much of that traffic as they possibly could. But the competition might well be keen. A large proportion of the said traffic could just as well go *viâ* Rotterdam, Dunkirk, Havre, or Hamburg, as *viâ* Antwerp. Belgium's only hope of getting a good share of the business lay in the reduction of her transit rates to the lowest possible figure.

But Belgium aimed in reality at more than merely securing so much additional traffic for her railways. The greater the volume of commodities in transit to or from other countries that could be attracted to the port of Antwerp, the greater would be the resort thereto of ocean steamers trading with all parts of the world. Then, as the number of vessels visiting Antwerp increased, Belgian works and factories would get their raw materials more cheaply, while the outgoing vessels wanting heavy goods by way of ballast would, it was argued, be glad to take Belgian iron, steel, and glass at low rates, looking to general merchandise for a really paying cargo. With her splendid geographical situation, Antwerp might become (as, indeed, she has) one of the greatest of collecting and distributing centres on the highways of the world's commerce,* good service being, at the same time, rendered to Belgian industries.

The essential preliminary to the realization of these important aims was the capture by Belgium, in the special interests of Antwerp, of as large a proportion as possible of the transit traffic. But just as, from the port of Antwerp, there is a network of State railways radiating to various points on the Belgian frontiers, and connecting with the countries beyond, so also is there a network of waterways which, in their turn, radiate from Antwerp, and, in the form either of canals or rivers (the latter constituting the basis of the whole system), are in direct touch, not only with every industrial district in Belgium, but also with Holland, Northern France, and Western Germany, representing, further, the first (or last) links in the whole chain of water

* In 1903 Antwerp attained to the position of third on the list of the world's great ports, taking the place previously held by Hamburg.

transport in North-West Europe. Rhine barges, of an average capacity of 1,500 tons, can load up alongside the ocean liners at Antwerp, and, without transshipment, proceed—viâ the East Scheldt, the Hollandsche Diep, Dordrecht, and the Waal—to the Rhine, reaching Cologne (256 miles) in about five days, Mannheim (418 miles) in seven or eight days, and Strasburg (500 miles) in from twelve to fifteen days—journeys altogether beyond the geographical possibilities of the British Isles.

In fixing, therefore, the rates to be charged for transit traffic to Antwerp, the Belgian State railways had to consider—(1) the rate for which the commodity in question could reach some other equally convenient port in Holland, France, or Germany; and (2) the rate that would be charged for inland water transit from the place of origin to Antwerp. To charge the traffic more than, in these dual circumstances, it would bear would simply have meant that the Belgian State railways would have got none of it, or very little. In these circumstances there were even greater reasons in the case of transit than in that of domestic rates for reduction to a 'lowest possible.'

Inspired by the example of the carriers by water, the Belgian State railways early adopted the principle of 'net cost' as the chief basis of rate-making, in preference to that of 'value' of the commodity carried; and they were also pioneers in the matter of differential rates (in place of equal mileage), 'net cost' having shown that the rate per mile could very well be reduced in proportion to the increased length of the haul. The original system, however, of taking net cost of operation as the basis of rates has since been modified by dividing into four groups, or classes, goods that are carried under the general tariff, and also by making fifty-six special

tariffs. It is in regard to these special tariffs that, in the case of Belgian railway rates, comparisons with ordinary English railway rates are generally, though most unfairly, made, and they are deserving, therefore, of some consideration.

Three-fourths of the tariffs in question are based on eighteen different scales, classified under different letters of the alphabet. From A to Q there is a gradually decreasing rate, while R gives the rates for waggon-load lots. In each instance the rates per kilometre published in the official list are for distances of 1 kilometre to 350 kilometres. The remaining fourth of the special tariffs are mainly station to station rates.

The nature of the scales in question may be judged from the following table, which gives the rates per metric ton per kilometre, and also per English ton per mile, for four representative distances:

Scale.	10 Kilometres (6·2 miles).		100 Kilometres (62 miles).		200 Kilometres (124 miles).		300 Kilometres (186 miles).	
	Franc.	(Pence.)	Franc.	(Pence.)	Franc.	(Pence.)	Franc.	(Pence.)
A	0·19	(2·982)	0·093	(1·460)	0·07	(1·099)	0·054	(0·848)
B	0·17	(2·669)	0·071	(1·115)	0·045	(0·706)	0·035	(0·549)
C	0·11	(1·727)	0·04	(0·628)	0·025	(0·392)	0·02	(0·314)
D	0·11	(1·727)	0·026	(0·408)	0·025	(0·392)	0·02	(0·314)
E	0·11	(1·727)	0·037	(0·581)	0·023	(0·361)	0·019	(0·298)
F	0·09	(1·413)	0·032	(0·502)	0·022	(0·345)	0·018	(0·283)
G	0·11	(1·727)	0·032	(0·502)	0·022	(0·345)	0·018	(0·283)
H	0·11	(1·727)	0·032	(0·502)	0·022	(0·345)	0·018	(0·283)
I	0·11	(1·727)	0·03	(0·471)	0·02	(0·314)	0·017	(0·267)
J	0·11	(1·727)	0·02	(0·314)	0·02	(0·314)	0·021	(0·330)
K	0·08	(1·256)	0·027	(0·424)	0·02	(0·314)	0·016	(0·251)
L	0·11	(1·727)	0·025	(0·392)	0·018	(0·283)	0·015	(0·235)
M	0·068	(1·067)	0·022	(0·345)	0·017	(0·267)	0·014	(0·220)
N	0·11	(1·727)	0·02	(0·314)	0·016	(0·251)	0·0135	(0·212)
O	0·11	(1·727)	0·02	(0·314)	0·015	(0·235)	0·0135	(0·212)
P	0·105	(1·648)	0·053	(0·832)	0·044	(0·691)	0·035	(0·549)
Q	0·11	(1·727)	0·03	(0·471)	0·025	(0·392)	0·02	(0·314)
R	0·84	(8·064)	0·28	(2·688)	0·19	(1·824)	0·14	(1·344)

With the causes that have tended in Belgium to the keeping down of railway rates in general to a low level

I have already dealt. But in regard to these special rates there are some further considerations which must not be overlooked.

In the first place, probably the most important of the special rates apply to commodities which are not only handled by the railway in large, if not exceptionally large, quantities, but also represent either exports or imports.*

Thus, of the first thirteen special tariffs on the list, no fewer than twelve relate to commodities consigned to a port, for immediate shipment, in such quantities as the following (1,000 kilos being reckoned as equal to 1 ton): Coal, stone, earth, 10-ton lots; coal, lime, minerals, gravel, sand, etc., 50-ton lots; coal, 200-ton lots; slag from rolling mills, puddling furnaces, and annealing furnaces, 10-ton and 100-ton lots; miscellaneous goods, 5-ton or 10-ton lots; metallurgical products, etc., 10-ton lots; glassware, 7-ton lots. Of special tariffs for imports there are nine, including—kaolin, china, clay, etc., 10-ton lots; arms, copper, calcium borate, truck-loads; rock-salt and sea-salt, 50-ton lots; miscellaneous goods, 5-ton and 10-ton lots; oats, in 10-ton lots, imported via Belgium ports, and sent on to France and countries beyond; tar, 10-ton lots.

For minerals, pyrites, blende, slag, etc., there are three special tariffs, namely: (1) 10-ton and 50-ton lots, imported by sea; (2) 10-ton and 50-ton lots, not imported by sea, but of other than Belgian origin; and (3) 50-ton lots, of any origin, going to Belgian works, the charges on the last mentioned being based on the

* Belgium does not cherish the same hostility to special railway rates on imports as is found in France and Germany. Under her system of moderate protection the duties imposed on manufactured goods are in no case prohibitive, and all raw materials (with the single exception of timber) are admitted free.

M scale, whereas the others, for 50-ton lots, fall under G or K in the first instance, and (with one exception only) under K in the class described as (2).

We come next to a group of station to station rates for : (1) coal, in 100-ton lots, to be shipped at certain places for the purposes of inland navigation ; (2) steel ingots, pig-iron, etc., in 10-ton lots, subject to a written guarantee from the consignor that he will give the railway during, at least, one year all the business he has of this kind between the stations named in the tariff ; (3) cereals and flour between Antwerp and sundry stations, under like conditions to (2) ;* and (4) coal and slag, in 100-ton lots, for zinc and lead smelting furnaces or lime and brick kilns. Another of the special tariffs gives agricultural produce and fertilizers in packages the benefit of the first class of the general tariff, with a minimum of 200 kilos (440 pounds) instead of 400 kilos (880 pounds) ; another is a seasonal tariff for lime intended to improve the land, and applying to transports effected between January and May or between August and September ; and still another is for raw cotton in bales, carried from Antwerp to Ghent in full truck-loads of 10 tons at the station to station rate of 4.35 francs per ton (3s. 6.430d. per English ton).

There are also some twenty 'provisional' special tariffs which have been entered into by the State rail-

* The declaration which the trader must make in order to obtain the advantage of this special rate is as follows :

'Le soussigné . . . déclare adhérer sans réserve, pour le terme d'une année, qui prendra cours le . . . aux prix et conditions du tarif spécial No. 46 du Service intérieur du chemin de fer de l'État-Belge.

'Il s'engage par conséquent à remettre à la voie ferrée, à l'exclusion de toute autre voie, tous les transports de céréales et de farines qu'il aura à effectuer, durant ce terme entre Anvers (Bassins et Entrepôt) (local et transit), Anvers (Sud-Quais) (transit) et Diest, Sichem, etc., et réciproquement.'

way for the conveyance of commodities, mostly with a minimum of 150 or 300 tons per consignment, between two or more points; but these particular tariffs are stated to be 'issued only to the parties interested.'

So, in addition to the general traffic conditions in Belgium which have tended to keep down railway rates, we find that the rates which are especially low refer to consignments that are especially large. We have seen also that in two instances the trader gets such rates only on guaranteeing to send by the State railways the whole of his consignments for one year. Still other considerations in connection with these special tariffs are the obligations thrown on the traders to do their own loading and unloading, and the very low limit to the liability of the railway for either delay or damage, a special premium having to be paid if, in the event of damage, the trader desires a higher compensation (for slow-freight goods) than 75 centimes per kilo (3·266d. per pound). The obvious effect of all these and of other stipulations and arrangements is to decrease the 'net cost' of handling the traffic, and to put a railway in a better position to concede lower rates than would be practicable under entirely different circumstances. For the purposes of a fair comparison of Belgian with British rates, all the services, etc., omitted from the former but included in the latter must be allowed for, and when this has been done it will be found that the difference between the two is much less than is generally supposed.

The same considerations apply to the passenger service. One hears of the remarkably low fares charged on the Belgian State railways, especially in the case of third-class passengers. But in Belgium the third-class carriages are of such a type that a vast proportion of the people who readily travel third class in England

would be compelled to travel second class in Belgium if they wished for the same degree of comfort. To begin with, therefore, the real comparison for a large proportion of the passengers is between second-class fares in Belgium and third-class fares in England. Then, again, railway travellers do not get the same facilities in respect to luggage in Belgium as they do in England, the charges in the former country being so high that those enforced on a moderate amount of luggage taken by, say, a family of four from Antwerp to Spa, would represent the equivalent of another ticket.* Substituting second class for third, and adding the charges for luggage, travelling in Belgium will, generally speaking, be found to be little, if any, cheaper than in Britain.

Other matters of detail not to be ignored in a comparison of Belgian and British railways are that, except in the south-west, Belgium consists mainly of flat lands, on which, even allowing for some important bridges, the cost of railway construction could be kept within moderate limits; that on these said flat lands single locomotives can draw heavier, and therefore better-paying, loads than in England, thus reducing proportionately the cost of operation; and that wages and working expenses in general are lower in Belgium than they are here.

* In Belgium a railway passenger may not take more than 55 lb. of luggage free into the compartment with him, and all luggage put in the van must be paid for at the rate of 6 centimes per 100 kilos per kilometre—that is to say, six-tenths of a penny per 1 cwt. 3 qrs. 24 lb. for each five-eighths of a mile travelled. In England the free allowance of luggage is: First class, 150 lb.; second class, 120 lb.; third class, 100 lb. At Brussels (Nord) Station the number of porters paid by the administration to assist passengers with their luggage is four, and at Brussels (Midi) three, though extra porters will be in attendance, who depend entirely upon fees from passengers. At Euston Station the number of porters in receipt of wages from the London and North-Western Railway Company is over eighty.

By the traders of Belgium, and by those of other countries who consign their merchandise to or through Belgium, the concession of exceptionally low railway rates of the type and under the conditions here described may well be a source of complete satisfaction. But when one comes to look at the financial results, as regards the actual operation of the State railways themselves, it is open to doubt if the Belgian taxpayers have equal reason for perfect contentment.

So far back as 1882 Sir H. Barron, in a report on the subject of the Belgian Budget to the then Minister for Foreign Affairs (Earl Granville) said :

The five years from 1876 each closed with a deficit, rising in 1881 to 6,250,000 francs (£250,000), the main explanation being the ever-increasing burden thrown on the Treasury by the extension of the railway, which undertaking has ceased to cover its charges, and completely disturbed the financial equilibrium of the State. The first lines constructed and worked by the State, being great trunk lines, gave every year an increasing return, which enriched the Treasury. To these were first added conceded lines, which had to be purchased from companies at high prices; then secondary lines, whose traffic was unremunerative. After many previous experiments the accounts of the railway have been, since 1878, drawn up on a new and presumably more accurate principle. The Treasury is now considered as the banker of the railway; it is assumed that all funds advanced by the former are chargeable with an interest of 4 per cent., and repayable within ninety years. According to this new method of book-keeping, it appears that the railway contributed largely to the revenue until 1872 inclusively, but that since that year it has, on the contrary, entailed an annual loss. . . . Fortunately, Belgium has a resource at hand.

The Minister of Finance, in the debate on the Budget of Public Works, points to that resource in the following pregnant words : 'It is proved that the railway fails to cover its charges by about five millions (£200,000). . . . Either the railway must be worked on a principle which shall allow it to cover the charges, or the taxpayers must make up the difference.'

Sir H. Barron went on to say that the inferior productiveness of the Belgian railways was due to the inadequate tariff, which for passengers and merchandise was much lower than the tariffs prevailing in the rest of Europe.

Since 1883 the supreme control of the State railways of Belgium has been under the direction of a special Ministry of 'Railways, Posts, Telegraphs, and Marine,' the Minister at the head thereof being aided by a committee of administrators and high officials. He is not, apparently, required, in return for his official stipend of £840 a year, to have any direct acquaintance with the technicalities of railway administration, to say nothing of such subsidiary matters as managing the Post-Office, looking after telegraphs and telephones, and keeping an eye on the Ostend-Dover Royal Mail steamship line in addition. In point of fact, two successive holders of this particular post were solicitors.

The practice in regard to the State railway finances seems to be that all the receipts from passengers, goods, etc., shall be paid into the National Bank, the expenditure being met each year by a railway Budget brought before the Chambers by the Minister of Railways. All salaries and wages are provided for in the Budget, in addition to cost of new works, renewals, payment of interest, sinking-fund charges, etc. The difference between the receipts and the expenditure counts as profit on the year's working.

Much controversy has arisen as to whether or not even such balances as are thus shown have been fully warranted. There are those who plainly assert that the authorities have at times indulged in manipulations of the accounts with a view to presenting the railway finances in a light unduly favourable to the Government, following, in fact, the practice so widely attributed to those responsible for municipal enterprises in our own country. On one occasion the Minister of Railways then in office was so impressed by the favourable appearance of his balance-sheet that he openly boasted 'it was he who kept the other departments

of the State going.' The position certainly did look roseate, until it was found that an altogether inadequate allowance had been made in respect to renewals and depreciation, and that the expenditure of a considerable amount on new locomotives, new coaches, new waggons, and other things besides, altogether indispensable if the railways were to be put into a condition of up-to-date efficiency, would make a substantial difference in the sum total of the alleged profit.

The deficits spoken of by Sir H. Barron amounted to £320,000 in 1873, £200,000 in 1875, the same in 1877, £280,000 in 1882, £120,000 in 1884, and £40,000 in 1886. This reduction in the deficits continued, until at last favourable balances were shown. Thus the net surplus in 1897 (less interest and sinking fund charges) was £469,253; in 1898, £473,796, and in 1899, £544,984. In 1900 there was a deficit of £66,405 (due to 'the high price of coal'). The net surplus in 1901 was £1,203; in 1902, £398,668; and in 1903 (when the working expenses decreased by £49,768 and the net receipts increased by £437,603), £957,080.

Taking the figures as they stand, the profits claimed during recent years do not seem to have done much more than counterbalance the losses on previous years, while in any case the net return on a capital expenditure of £83,000,000 (which is the amount spent by the Belgian Government for construction or purchase of railways since 1834) is one with which no enterprise conducted on a commercial basis could be content.

In Belgium itself the official argument is, of course, that the railways are operated in the interests of the country, and that there is no idea of making a profit out of them. True it is that low railway rates may have done much to develop industries and to increase the transit business, but why the general taxpayer

should have to make up the difference when the home or the foreign trader wants to have his goods carried at unremunerative rates is by no means clear. In the case of the Dover-Ostend mail service, run by the Belgian Government, the excess of expenditure over receipts is about £100,000 a year.

Here, again, it is argued that the steamship service fulfils a useful purpose, inasmuch as 'it brings people into the country.' Whether or not it really does take to Belgium many people who, but for the scale of fares charged by this route, would not otherwise go there is doubtful. The amount of gain to Belgium by charging less than the net cost of their journey to through travellers, who may spend little more in Belgium than the price of a cup of coffee at a railway-station, is no less doubtful. But one thing quite certain is that if the Belgian taxpayer is content to contribute from his own pocket in order that (among others) Englishmen may travel, or send their merchandise, through Belgium at fares or rates which do not pay, there is no reason why we should complain—provided only that railway companies at home, operating as commercial enterprises, are not expected to charge on the same scale.

Finally, the railway situation in Belgium has its political as well as its economic aspects. For a sum of 11f. 5c. (9s. 2½d.) one can buy there a third-class ticket which gives to anyone willing to tolerate third-class travel in Belgium the run of the State railway system for a period of five days. There is probably nothing to surpass this in any other country in the world, and it is not surprising to learn that within a fortnight of the date when the ticket first came into operation—August 1, 1903—the number sold to the public was no fewer than 14,340. When, however, I discussed the subject with a railway man at Brussels, he said:

The whole thing is just a sop by the Clerical Government to the Socialists, though you would never get the Minister of Railways to admit as much. The Socialists are a power to be reckoned with in Belgium. Their strongholds are within half a day's walk of Brussels, and so frequent and so serious have street disturbances been that the locality where the royal palaces and the Government offices are situated constitutes a neutral zone, where something like martial law is enforced whenever trouble arises. The very buildings in which the chief officials of the State railways transact their business have strong iron gratings in front of all the lower windows, so as to protect the place from possible attack. In such conditions as these a State railway can be made use of to serve a political purpose. There had already been granted a fifteen-day ticket, allowing a person to travel over the entire system, third class, for 23 francs, a second-class ticket for the same period costing 40 francs. But the cry was raised that the poorer classes, who had only a short holiday, should have a corresponding concession made to them, and the Government made a bid for the favour of the *prolétariat*, just as previously they had made one for that of the *bourgeoisie*.

I give these remarks for what they may be worth, but there are other things besides which point to the possibilities of railway operation being mixed up with politics when the railways belong to the State. Not only, for instance, have the Deputies secured the right to travel free on the Belgian State railways between their homes and the capital, but fast trains which pass through large stations will stop regularly at some small one—especially in the Socialistic districts—to suit the personal convenience of some particular member. I find also, from the official *Compte Rendu* of the operations of the Belgian State Railways, that not only are 88 per cent. of the tickets sold during the year *billets à prix réduits*, but 2,000,000 have been issued in a single year to 'militaires, enfants, électeurs.' In Great Britain an elector who has to make a journey by rail before he can go to the poll must pay the ordinary fare; but in Belgium the Government, which controls the railways, and would naturally be glad to have the support of as many votes as possible, is able to tempt

them with an offer of tickets at reduced prices if only they will take the trouble to make a journey by rail (where necessary) to record their vote.

The enterprise of the Belgian State in building main lines of railway has, apparently, come to an end. But much is being done in the construction of light railways, which are playing a rôle of steadily-increasing importance in the further development of locomotion in Belgium. These light railways are practically a monopoly of the Société Nationale des Chemins de Fer Vicinaux, which was created under laws passed in 1884 and 1885, and represents a centralized public trust. No private company may construct a light railway in Belgium until the Société Nationale has declined to carry out the project. The capital required is contributed almost exclusively by the public authorities. Of late years the State has generally subscribed one-half of the capital in respect to each particular line (the accounts of which will be separate from those of other lines), and the remaining half is divided between the province and the communes concerned, except as regards about 2 per cent., which represents investments by private individuals. At the end of 1903 the Société Nationale held concessions for 1,911 miles of railway, of which 1,443 miles were in full working order. Schemes representing a further 1,243 miles of route were under consideration. Some of the lines carry passengers and parcels only. Those carrying goods comprise 1,300 miles of the total. Nearly all are laid along the public roads. The capital expenditure amounts to £4,480,000, or about £3,400 per mile, and the dividends paid in 1903 averaged 3·27 per cent. on the capital. 'The excellent financial results,' says M. C. Colson, in a paper on 'Direct Financial Co-operation by the State and by Localities interested in the Development

of Light Railways,' contributed by him to the International Railway Congress, held at Washington in May, 1905, 'are due in a large measure to the exceptional richness of Belgium, and also to a legislation which, instead of burdening the secondary railways with special taxation and charges for the benefit of the postal and telegraph services, exempts them from any license duties, from local taxation on their real property or on their stock, from all stamp and registration duties, and finally grants the National Company exemption from postage.'

CHAPTER XIX

THE RAILWAYS OF DENMARK

IN the securing by Danish traders of those especially favourable railway rates in their own country which have helped them materially to develop their great trade in dairy and other produce with the United Kingdom there have been two chief factors—(1) the action of the State, and (2) the joint action of the producers themselves.

When the railway movement was started in Denmark the disposition of the State was to leave matters in the hands of private companies, and these were so far enterprising that they provided a series of lines connecting Copenhagen with various towns on the island of Zealand, others, though of less importance, following in the small isles of Falster and Laaland, to the south. The companies, in fact, constructed railways in the best-populated and most prosperous districts; but when it became a matter of building other lines on Fünen and in Jutland, the companies held aloof, not caring to embark on enterprises which promised no adequate return on the outlay. So the State had to provide at its own cost the lines that were not thought likely to pay, but were wanted all the same.

The next stage was reached when some of the companies began to get into financial difficulties, notwithstanding the fact that they had secured the pick of the

routes. But, truth to say, the traffic, especially in those days, could not have been very great or very remunerative. Lying off the beaten track of international commerce and travel, Denmark was in an altogether different position from Holland, Belgium, Germany, or France, each of which could make its bid for the Continental through traffic, while in those days Denmark had not yet created a big export trade on her own account. In the circumstances, railway enterprise in Denmark might well seem to offer no great prospects from a commercial standpoint.

Then there happened in Denmark what, as we have already seen, was happening elsewhere: the State first of all went to the relief of the distressed railway companies, and it afterwards decided to buy up all the lines that were of any importance at all and add them to its own system. This it had done by the end of 1889, and since then the State has built a number of new lines. Even within the last seven years the extensions it has provided have represented a total of about 400 English miles.

In operating the network of lines of which they thus got possession, the Danish Government met with a very strong expression of opinion on the part of the Danish people that the railways ought to be conducted in the interests of the country, without any regard to the question as to whether they yielded a profit or not. In fact, it was considered that if any profit really were made, this would be a certain proof that the rates and charges were higher than they should be. Views such as these were especially enforced by the representatives of the agricultural interest, in proportion as their influence in the State increased.

The rates and charges had at no time been heavy. The cost of construction had not been great; the people

were none too wealthy; water competition was keen, and the roundabout way of getting, say, from Copenhagen to the North of Jutland, by rail and ferry-boats, represented so long a distance that a strictly mileage rate would have been impracticable. All the same, when the operation of the State lines showed a favourable balance of about 2 per cent., the agriculturists raised an outcry, and represented (in effect) that they were being robbed.

So a substantial reduction was made in the already low rates—to satisfy public opinion. Concurrently with these concessions, the State had to spend considerable sums of money on new rolling stock and new lines to meet the increasing requirements. The result of this combination of circumstances was that the item of net profit dwindled and dwindled, until at last it disappeared altogether. In the financial year 1897-1898 it stood at (in pounds sterling) £241,000; in 1898-1899 it fell to £163,000; in 1899-1900 it was £140,492; in 1900-1901 there was a big drop to £14,000; and in 1901-1902 there was a deficit of £12,000.

A reaction followed. Railway management by public opinion was evidently not having the success that could be desired, and, although there was a recovery in 1902-1903, the fact was recognised that the rates which were being charged were lower than they ought to be, consistently with the financial success of the railway system. Considering that a commission formed in 1900 had valued the railways, as a State asset, at £14,170,000—subsequently reduced by the Minister of Finance to £10,350,000—even such favourable balances as those mentioned did not suggest any excessive return on this amount of capital.

So the general reduction in rates of a few years previously was followed, in July, 1903, by a general

increase, the nature of which is shown by the following examples :

DANISH TARIFFS, NEW AND OLD, FOR TRUCK-LOADS
OF TEN TONS.

(1 krone = 100 öre = 1s. 1½d.)

From Copenhagen to	Distance in Miles.	Butter.		Grain.		Coal.	
		New Rates.	Old Rates.	New Rates.	Old Rates.	New Rates.	Old Rate.
Roskilde ...	19	k. ö. 19'60	k. ö. 17'70	k. ö. 15'10	k. ö. 13'20	k. ö. 10'80	k. ö. 9'90
Korsör ...	67	47'40	43'70	33'90	31'10	23'40	22'50
Esbjerg ...	205	83'80	80'10	62'20	60'30	45'00	44'10
Aalborg ...	305	108'00	104'30	81'90	80'90	59'40	58'50

The above, it is important to remember, represent rates for use of truck and haulage only ; everything else counts as an extra, and must be paid for accordingly. The railway will send to a trader for his consignments, if he should so desire, and will load them into the trucks ; but it will charge him at the rate of 20 öre per 100 kilos for so doing. It will also unload and deliver at the other end, but only on the same terms. The railway thus reduces the net cost of operation to a minimum, and charges accordingly.

One outcome of this situation in Denmark has been the formation of a society of labourers which contracts with merchants and traders for the loading and unloading of their consignments into or out of the railway trucks. Established with the sanction of the State railway, the society is subject to the control of the railway officers, and its charges must not exceed a scale approved by the Ministry for Public Works. So, to arrive at the real cost of railway transport in Denmark,

one must add to such rates as those I have quoted the further charges or expenses in respect to various services which the railway leaves the trader to perform or arrange for himself.

Since 1901-1902 (when, as I have shown, there was a deficit of £12,000) the State railways of Denmark have yielded a much better return, the balance for 1902-1903 being £169,000 (representing 1·69 per cent.), and that for 1903-1904 £307,000 (2·97 per cent.), while the estimate for 1904-1905 was still more favourable. It remains to be seen whether or not the Danish agriculturists will now want another general reduction of rates. In any case, a railway administration which can employ public funds for the construction or the purchase and general maintenance of its lines, and is under no obligation to secure a reasonable return on capital expenditure (but is even liable to rebuke from the traders if it does !), should indeed be in a position to keep its scale of rates low, especially under the traffic conditions already indicated.

Nor in Denmark is the action of the State limited to transport by land. State aid has been given to the agriculturist—at the cost of the taxpayer—in respect also to transport by sea ; for the State grants subsidies to the Danish lines of steamships which carry produce from Esbjerg to Harwich and Grimsby respectively, thus allowing much lower through rates to be charged than would otherwise be practicable.

Then I have said that another factor in the situation is the joint action of the producers themselves.

There is no need for me to repeat here the now familiar story of how the farmers of Denmark combine and co-operate with one another in every possible phase of their business life. On the general aspects of the question I content myself with giving the following

extract from the report for the year 1903 of Captain Boyle, His Majesty's Consul at Copenhagen :

The year might certainly have been more favourable as regards agriculture, and crops might have been heavier and of better quality if the weather had been finer ; but the systematic way in which farmers meet all difficulties on the basis of co-operation seems to enable them, however much circumstances are against them, to overcome most difficulties.

What I would especially point out, however, is the effect that all this combination has had on the bulk of the consignments forwarded by rail to Esbjerg or other ports for despatch (mainly) to England. In the table on page 307 I have quoted figures for 10-ton lots. The fact is that in conversing with railway men in Denmark one falls naturally into the way of talking of waggon-load lots rather than hundredweights. In England a 10-ton consignment of home-fed bacon would be regarded as prodigious ; but in Denmark there is one bacon factory which will send five 10-ton loads of bacon to Esbjerg twice every week, and trains will arrive at that port each bringing as many as thirty-five waggons of bacon collected at various points on the island of Jutland alone. In a single year the Danish State railways have conveyed, among other merchandise, 90,800 tons of meat and bacon, 85,300 tons of butter, and 28,800 tons of eggs. Of these quantities, they carried to Esbjerg, for transport thence by sea to England, 50,600 tons of meat and bacon, 27,700 tons of butter, and 10,000 tons of eggs.*

Wholesale consignments such as these naturally get the most favourable of terms on the Danish railways, independently altogether of any special desire on the part of the State to foster the agricultural interests of the country. In the same way they provide for the

* Our total importations of butter, bacon, and eggs from Denmark in 1904 amounted in value to £14,997,000.

English railway companies on their arrival here big loads with which there is nothing to compare in the way of corresponding quantities of native produce.*

In addition, therefore, to the fundamental differences between the conditions of railway ownership and operation in Denmark and in England respectively, already tending to keep down the scale of railway rates in the former country to an almost irreducible minimum, we get this further fact: that economy in railway transport in Denmark (affecting also the corresponding transport of the same produce on British railways) is greatly facilitated by the magnitude of the grouped consignments, as the direct result of a general adoption of co-operative principles.

As for the point of view from which British railways, in their turn, are regarded by railway men in Denmark, I cannot do better than record the following remarks made to me in Copenhagen by one of the leading officials on the Danish State system:

I do not think the rates and charges of your English companies are too high, considering that railways cost so much to build in England, and especially considering the magnitude of the organization necessary to the rendering of services not included in our rates at all. When I go to London, and see there the great depots which have been erected on land that must be immensely valuable, and when I see also the arrangements made for the collection and delivery of goods, and so on, it seems to me that the charges made by your companies cannot, in the circumstances, be regarded as at all excessive.

On the subject of light railways in Denmark, Mr. E. A. Ziffer said at the International Railway Congress at Washington:

The State assists the construction of light railways by giving them the right of compulsory purchase of land and the right of exemption from paying taxes and rates and stamp duties, and by

* See p. 150.

allowing them to import materials used in construction free from duty, or else repaying any import duty already paid. The State further helps the construction of light railways, as a rule, in various ways, but the principle on which this assistance is given has varied very much at different periods.

There are very few light railways in existence which have not received further special assistance, in addition to the expropriation rights and exemption from taxation.

In the majority of cases, the light railways have been assisted as follows:

In some cases the State has paid either the whole or one-half of the cost of the land. In others it has guaranteed 4 per cent. interest on the whole or part of the capital invested. In other cases, again, it has granted a subvention in proportion to the length of the railway.

In the case of the more recently constructed lines, their construction has been governed by the law of May 8, 1894, which specifies that the State shall contribute one-half or three-quarters of the expenditure on works, etc.

That part of the capital outlay for these railways which is not contributed by the State is obtained by the issue of debentures, preference shares, and ordinary shares.

As a rule, the local authorities assist in raising the capital for the enterprise by taking over a more or less substantial part of the debentures and shares.

CHAPTER XX

CONCLUSION

THE subject with which I have here attempted to deal is of so wide, so varied, and so complicated a character that I could not hope to treat it exhaustively, in regard alike to home and to foreign conditions, within the limits of a single volume. But while the student of railway economics may consider that there is much I have still left unsaid, other readers, I trust, will find the general survey I have given sufficiently comprehensive to enable them to pass a sounder judgment on the situation as a whole than would be possible without a knowledge of facts such as those I have advanced.

I will not attempt to anticipate what that judgment may be, but the view I have myself formed, as the result of such investigation as I have been able to make, is that British railways have been subjected in the past to a great amount of criticism that is harsh, unjust, and ungenerous. As a human institution, with many disadvantages and drawbacks, they are naturally not without their faults and shortcomings; but, considering all the circumstances under which they came into being, and the particular conditions under which they are operated, as compared with the corresponding circumstances and conditions in the case of foreign railways, the wonder is that they can show such results, and

stand the test of comparison so favourably, as they do. Plundered by landowners, restrained by Acts of Parliament, handicapped by Board of Trade regulations, converted into 'the milch-cows of local exchequers,' compelled to see both cost of construction and working expenses swell into abnormal proportions, the British railways have had to bear unjust comparison either with the railways of the United States, built and operated as I have narrated elsewhere,* or with Continental railways, constructed at lesser cost, owned or supported by the State, made to play a political as well as an economic rôle, and operating under what are often wholly different traffic conditions. Not only have these fundamental differences been generally ignored by British critics of our greatest example of British enterprise (in other parts of the world our railways are regarded from a much more favourable point of view); not only are railways here expected to do everything that can be done by railways elsewhere, but, as I have shown, the said critics, in the comparisons they make between railway rates here and those abroad, do not, generally speaking, compare rates that are really comparable, and they omit from consideration the fact that the British rates may include services which are not included in the foreign rates, and the cost of which services, if added thereto (that is, contrasting export rates with export rates, and domestic with domestic), would show that there is often but little, if any, difference between the two.

Even, however, when due allowance has been made for all these things, it is doubtful if there is any real basis for comparison between British and foreign railway conditions at all. If I were asked to state in a single

* 'American Railways' (Macmillan), 1903.

phrase the distinguishing feature of British railway operation, I should say it was one of 'short hauls and small consignments.' We have in the British Isles neither the geographical distances nor the wholesale quantities (apart from imports) either of the United States or of the Continent. If the reader could have stood with me on the main lines of the Santa Fé Railway in New Mexico, and seen complete train-loads of fruit—as many waggons as an American locomotive monstrosity could possibly haul—going through from the Pacific to Chicago, if not to the Atlantic; if he could have watched, with me, the making up at Galveston (from the steamers arriving there from New York) of train-loads of general merchandise to be taken *en bloc* 2,000 miles across the plains of Texas and the deserts beyond, to San Francisco; if he had found on the Illinois Central, as I found, daily train-loads of imported bananas going on the 900-mile journey from New Orleans to Chicago; and if, finally, he had heard, as I heard in Minnesota, of the monstrous loads of wheat and maize that might, when navigation is closed on the lakes, go all the way to New York by rail, then he would no longer wonder how it is, in all these circumstances, that the rate per ton per mile on the American railways—already built at so small an average cost per mile—works out so low. Nor would he wonder how it was that, when I asked an American expert to give me a rate for the transport of, say, 10 cwt. of a particular commodity for a distance of 30 miles (so that I could really compare like with like), he replied, 'Oh, we don't bother about such business as that.'

Looking at the Continent of Europe, we find there, also, both lengths of haul and magnitude of consignments much in excess of our own. Taking the through traffic, which represents so important a part of the

whole, there are such hauls as those from Italy to Boulogne, from Roumania to Hamburg, or from Galicia to Bremen, the commodities in question being, in each case, destined for Great Britain. In these and similar instances the combination of length of haul and great bulk of consignments would lead to the concession of a rate which naturally represents something very low per ton per mile, independently of the special efforts the State lines concerned may make to develop the traffic. Inasmuch as the British railways could not have such long hauls, even if they could secure such large quantities to carry, it would be idle to inquire whether or not their rates per ton per mile would work out higher or lower under similar conditions.

Leaving aside absolutely delusive comparisons as to rates per ton per mile, the fact remains that the sum total of the freight paid by the foreigners for the transport of, say, their cauliflowers from Italy, or their eggs from Galicia, to London is greater than what a British trader would pay for the transport of like commodities in corresponding quantities from any part of the British Isles. The same argument applies, though in a lesser degree, to a good deal of the traffic originating in, and exported from, Germany, where the manufacturing districts are generally at least 150 miles from a port, though here, of course, in addition to the fact of the long haul reducing the rate per ton per mile, we get the consideration as to the virtual bounties given by the State in the form of still lower transport rates for exports than even big lots carried good distances would justify.

To get anything like equality between British and Continental railway conditions, it would be necessary for our Government either to buy up railways on which, as I have shown, at least £1,054,000,000 has been spent,

or else to guarantee to each company the payment of a stipulated dividend to its shareholders. In the former case a gigantic sum of money would be required ; in the latter it might still be necessary for the taxpayer to provide the funds that would allow of the trader sending his goods by rail at lower rates than at present. If the country were prepared to adopt either of these courses, the whole position would be simplified ; but, as it is, the fact that the average dividends paid on the £1,054,000,000 invested in British railways represent only $3\frac{1}{4}$ per cent. does not suggest that, under present conditions, railway shareholders are getting unduly large profits, at the cost of traders and travellers. If it suits the national policy of the United Kingdom that no public money should be put into the railways, that no State aid of any sort whatever should be given to them, and that everything shall be left to the enterprise of private individuals, who put their money into railways in the hope of getting a fair return therefrom, then our railway system must be looked at from an entirely different point of view from Continental systems in which, as we have seen, such very substantial sums of public money have been involved.

For these and for the various other reasons already adduced, a comparison of British with Continental, or even with American, railways is altogether delusive, and in the one case, as in the others, judgment must be based on individual merits and national circumstances. If this be done, most of the grievances which have been advanced here because of differences, real or imaginary, between British and foreign railway rates become untenable, and we are left with the consideration (1) whether British railway rates, judged from the standpoint of our own position, are unduly high in themselves ; (2) whether there are legitimate grounds for complaint, apart from

the aforesaid comparisons ; and (3) whether there are any practical steps which could be taken to bring about a reduction in rates and charges.

On the first of these points I would recall to the mind of the reader the fact that the schedule rates represent simply maxima beyond which Parliament will not allow the railway companies to go, and that 75 per cent. of the total merchandise and mineral traffic is, on an average, carried under special rates, which represent more or less favourable reductions on the schedule rates. Any judgment, therefore, formed on the legal maxima alone will be misleading.

Then, the question which arises may be not simply the amount which the trader thinks he ought to pay, but the particular rate at which the railway can afford to carry. Cost of construction, working expenses in every shape or form, and a fair return on invested capital, can only be met out of the revenue received from traders and passengers, and if the two first-mentioned items have, under a variety of circumstances, grown to abnormal proportions, then, unless the railway shareholders are to dispense with any dividend at all, the trader must pay more for the transport of his goods than would otherwise be necessary. What the British railways have cost to make, or to widen after they have been made, has already been shown ; but in the matter of working expenses the burdens imposed on railway companies in respect to the heavy exactions of local rating authorities ; the demands of the London County Council and other public bodies for the running of unremunerative workmen's trains ; the increased financial obligations thrown upon the railways by Parliament ; the various requirements enforced from time to time by the Board of Trade ; and the loss of traffic through the competition of municipal tramways, which the railway

companies suffering therefrom may have to support through the local rates to which they are the largest contributors, must all materially curtail the ability of the railways to reduce their rates below a certain figure. The shareholders suffer in the matter of dividends, but the public bear their part as well by having to pay higher fares, rates, and charges than would be needed if British railways could have been built at less cost, or could even now be operated with a greater degree of moderation in the way of burdens imposed on the companies themselves.

As regards actual complaints, taking those in which foreign rates do not come into consideration, a large proportion will turn on the various anomalies resulting from variations due to sea competition, special rates, and bulk of consignments, or on widespread misapprehensions based on a non-recognition of the fact that the actual distance any one consignment is carried, as compared with another, may be only a secondary consideration in the matter of goods traffic, and become altogether subordinate to other circumstances into which the element of distance scarcely enters.

Then, I fail to see legitimate grounds for the complaint that railway companies carry wholesale quantities at a lower rate per ton than they do retail quantities, especially considering that they are willing—as the law requires of them—to give to all traders alike the same rates under the same or similar circumstances. If the small trader cannot operate on the same scale as the large one, it is only in accordance with commercial principles that he should pay a different rate.

As for the allegations in respect to preferential rates, I may recall the fact that in a debate on 'Rural Depopulation' in the House of Commons on February 24, 1905,

Mr. Ailwyn Fellowes, now President of the Board of Agriculture, said :

With regard to the question of preferential rates, the work of the Committee on that subject had been disappointing up to now, but owing to no fault of the Committee. Every Chamber of Agriculture, every farmers' club, and every agricultural society, had been asked to send up witnesses to give evidence before the Committee on the question of preferential rates, but at present the response had been very small.

Three days later the *Manchester Courier* published the following :

On Saturday, at the annual meeting of the Lancaster Farmers' Association, Mr. Ball, the secretary of the Lancashire Farmers' Federation, urgently asked for any instances where foreign produce, on arrival at Lancashire ports, had been carried to English markets at cheaper rates than were charged for conveyance of home produce to the same markets. The Departmental Committee, which was at present inquiring into this question, complained that, though general allegations were made, there was an absence of concrete evidence supporting them. He had personally failed to discover a specific case to lay before the Committee.

In view of these statements, it does not look as if the allegations so freely advanced against railway companies in regard to preferential rates to foreigners had the slightest foundation in fact. It is, at least, significant that urgent appeals of this kind should have to be made for 'concrete evidence' in order to support so very weak an indictment.

Coming to the question of any possible reduction in rates and charges, two facts to be specially remembered are—(1) that the effect of legislative action, as detailed in Chapter II., has been to bring about a lack of elasticity in the relations of railway companies towards the traders, the former being no longer entirely free agents in their ability to act on strictly commercial considerations; and (2) that, however great the willingness of

a railway company to grant a reduction of rates for a certain commodity between two specified points, such reduction might be very difficult to arrange, because that same rate would govern rates between a variety of other places, either on the same company's line, or on those of other companies with which there was a friendly agreement.

Subject to these two disadvantages, the concession of special rates, in the interests either of particular districts or of certain industries, is a matter much easier of arrangement in the United Kingdom than it is in Continental countries where the operation of railways is a matter of direct or indirect State control. As regards, however, any general or even widespread reduction of railway rates, the reader must see how impracticable such a procedure as this would be so long as the railway companies have to meet all those onerous and burdensome obligations I have detailed above ; and one of the most practical steps which traders could take—if only in their own interest—would be to exercise such influence as they could on local and Imperial authorities with a view to the reduction of these obligations to proportions at once more equitable and more in accordance with the best interests of British trade and commerce.

Reform in this direction may be difficult of attainment, but the trader might also take into consideration whether he could not do something more towards helping the railway companies to reduce that cost of operation which must necessarily count as an important item in the fixing of rates on particular commodities. It is hopeless to expect any such transformation of British trading conditions as would effect a complete reversal of the system under which the retail trader, especially, receives small consignments at frequent

intervals; but a little friendly co-operation with the railway company might often lead to the rolling stock being used to greater advantage. A trader will get his supplies day by day or week by week, to suit his own convenience, without any regard for the amount of dead weight the railway company may thereby be forced to carry in order to earn the rates it charges him; whereas, if he could order two days' or two weeks' supplies in one, or even if he did not insist on such prompt delivery, the railway company would often be able to save a waggon and make up a better-paying load.

It is the practice, for instance, of small publicans to have five casks of beer at a time from Burton. In the majority of cases each order of five barrels will have to be put in a separate truck, so that every night 100 or more railway trucks, which could easily carry thirty-five barrels each, are loaded up by the Burton brewers with only one-seventh of that number. If ordinary bricks are placed in regular rows in a railway truck, instead of being thrown in without any order, the truck will hold 25 per cent. more. On a large consignment a saving of one or several trucks might thus be effected. In the case of slates from North Wales, a railway truck would hold a larger quantity if the slates were packed into it on end instead of lengthwise; but there are prejudices on the part of the quarry people in favour of the latter system, and it is a matter of indifference to them if a larger number of trucks should be needed than would otherwise be necessary, and if the cost of haulage should become proportionately greater.

The position is still worse in regard to ordinary merchandise and agricultural produce, the result being that the average load obtained by British railway companies in general for trucks which, as a rule, will carry at least 7 tons is only from 2 to 3 tons.

Even from Liverpool, where the conditions are especially favourable, owing to the heavy loads of imported meat, timber, cotton, etc., the average loading per truck on the London and North-Western Railway is only 3 tons 10 cwt.—a figure that works out somewhat higher in the case of the Lancashire and Yorkshire Company, because of the greater quantity of cotton taken by that company to Lancashire.

Alike in the United States and on the Continent of Europe, the conditions of trade and of operation enable the railways to secure a larger proportion of paying load to dead weight than is the case in the United Kingdom. In America the freight cars are much oftener loaded to their full capacity. On the Continent of Europe the trader or the forwarding agent pays for a 5-ton or a 10-ton truck, whether he can fill it or not, while both the railways (when they act independently) and the forwarding agents (when they act as middlemen) are able to keep consignments back for a certain period if by doing so there is a better chance of their making up a full load. This practice would not be tolerated by the traders of Great Britain, who, in effect, have been spoilt, rather than impoverished, by the railway companies. 'If,' a district goods manager once said to me, 'we had only a brown-paper parcel, we should have to send it on'; and then he told me this story concerning himself:

When I came to —, I was full of youthful enthusiasms, and I thought I would try to reform certain things that seemed to be capable of improvement. I was especially worried at seeing the way in which trucks were leaving only a quarter loaded, and one day I told the men to put into one and the same truck a consignment for the town of A and another for B, twenty-five miles further down the line. This was done, and I congratulated myself on having saved a truck. But the result was that the trader at B, instead of getting his consignment the next day, did not receive it until the day after. I knew there was no real urgency, and if the

goods had been sent by canal the trader would have been quite willing to wait for them three days instead of two. But he had been so accustomed to prompt delivery that he was not inclined to tolerate any delay merely because it allowed the railway company to work the traffic more economically. He made complaints which were so loud and vigorous that I ventured on no further experiments, and the reform movement I had hoped to start came to a speedy and untimely end.

The individual in question was, after all, only a type of a very large class of traders. They expect prompt delivery of consignments of whatever weight, without any regard to the actual cost of handling; and they expect to pay no more than the lowest rates paid by the Continental trader for a service which might take at least three or four times longer, and would certainly be much more economical to the railways.

Another respect in which, it is to be feared, British traders have been spoilt by their railway companies is in regard to the minimum load. I have shown that in Continental countries the special or exceptional rates apply to loads with minima ranging from 5-ton or 10-ton up to 200-ton lots, so that only big traders, or forwarding agents collecting from the general public, can take advantage of them. Recognising the more retail nature of the British traffic; anxious to put smaller traders on a level of equality with the larger ones; and not wishing to drive those smaller traders into the hands of middlemen forwarding agents, as in Germany, the British railway companies have, in a large number of instances, reduced the minima of their special rates to only 2-ton or 4-ton lots. They still expect to get large quantities to carry at these rates, as Mr. Ree, of the London and North-Western Railway Company, explained to the Newport farmers;* but the effect of their concession is that the smaller trader in Great Britain secures an

* See p. 108.

advantage which is denied to the smaller trader in Germany.

The benefit to the railway companies themselves is a somewhat doubtful one, for the result has been to reduce the average load, under the operation of special rates, to a much smaller proportion than is the case on the Continent. There the minima have been fixed on the basis of a really remunerative load, and the trader has been accustomed to work up to them. Here the minima too often represent an unremunerative load, but the trader, nevertheless, works down to them. The Continental trader is bound to send at least 5 tons or 10 tons to benefit from the most favourable rates. The British trader, being offered the advantage of a special rate for (in many cases) 2 tons, seems to think that if the railway companies are willing to give him such a rate, and carry his 2 tons, or his 4 tons, in a truck that would just as well hold 7 tons or 10 tons, there is no reason why he should hold his consignments back a day—or allow the railway to do so—or why he should send single consignments in larger bulk, merely because a better-paying load for the railway might then be offered.

So, in affording greater facilities to the traders, the railway companies have adopted a course which has tended to increase still further the proportion of non-paying to the paying load, to their own disadvantage; while the traders, as a rule, not only refrain from making, in return, any effort to facilitate economical operations, but, as soon as they get, or may be in a position to get, an 8-ton, 10-ton, or 15-ton consignment together, they want to know 'what the company is going to allow them,' and very often can only indulge in ill-natured criticism on finding that still further reductions are not made!

'Midland Manufacturer,' for instance, in a letter to the *Statist*, of June 25, 1904, writes that to secure best rates on ingots of lead, antimony, and heavy metals generally, 2-ton lots are the limit, and he knows, 'as a repeated fact,' that the Midland Railway Company conveys his 2-ton lots in a separate waggon, and without other merchandise to make up a waggon-load. 'I have repeatedly tried,' he goes on to say, 'to get the railway company to give me a concession for an 8-ton, 10-ton, or 12-ton load in one waggon, but they absolutely decline;' and because they so decline he says he is 'sick of their stubbornness,' and he condemns railways in general as 'tyrannical' and 'very unbusiness-like.'

There is not the slightest appreciation here of the fact that 'best rates' can be obtained for as small a quantity as 2 tons—not the slightest suggestion of any willingness to make transport at such rates remunerative to the railway company. It is the old story of the Berwick trader over again. 'What we want is to have our fish—or our ingots—or anything else—carried at *half* present rates. We don't care a ——— whether it pays the railway or not.'

To sum up, my conclusions on the whole subject are: That British traders must regard British railways from a British standpoint, and not expect everything to be done here in strict accord with foreign conditions which are absolutely different in almost every possible detail; that the grievances advanced, apart from unfair and illogical comparisons, are generally either imaginary or the result of geographical or economic anomalies practically unavoidable; that no general reduction of railway rates in Great Britain can be looked for so long as the companies are burdened to so great an extent by the Legislature, by Government departments, and by local authorities with a host of

obligations which tend either to swell their working expenses or to diminish their revenue ; that good results, leading to mutual benefits, might well be attained if there were more willingness on the part of the traders to co-operate with the railways with a view to securing greater economy in operation ; and that in many individual instances where lower rates are desired the remedy is already in the hands of the traders themselves.

APPENDIX

THE BRITISH CANAL PROBLEM

VARIOUS proposals have been brought forward of late years with a view to the revival of our neglected canals—as an alternative means of transport for merchandise and raw materials—by widening, deepening, and otherwise increasing their possibilities of usefulness ; and different advocates of the main idea have suggested schemes based, some on the principle of nationalization, some on that of municipalization, and others, again, on that of public trusts with State guarantee—any one of which projects foreshadows at least the possibility of very substantial sums of public money being more or less involved in the schemes in question.

The subject is one which thus appeals both to the trader and to the taxpayer, and it may be of public service if, following up what I have already said about railways, and as an appropriate sequel thereto, I lay before the reader some concrete facts which **should** at least place him in a better position to pass judgment on the points at issue.

At the outset I would point to the fallacy of comparisons between British and Continental waterways in respect to (*a*) commercial and (*b*) physical conditions.

There is no need for me to repeat here what I have already said in my sketches of leading Continental railway systems as to the great volume of transit traffic that pours through Holland, Belgium, Germany, and France to or from all parts of the Continent of Europe, swelling to very

substantial proportions indeed the sum total of the traffic each of those countries handles. Holland and Belgium, more particularly, are toll-gates and forwarding stations on the highways of the world's commerce. In Great Britain, on the other hand, we have comparatively little transit traffic passing through the country under like conditions. A certain quantity of commodities may reach Liverpool from the United States, and be carried through from there to Hull or London for further shipment to Continental ports; but if there were large consignments available, they could just as well be consigned direct to Hull or London, or to a Continental port, instead of to Liverpool, so that transit across England would be saved. In this way there is obviously a complete dissimilarity between traffic conditions here and those of the Continental countries in question. The element of transit traffic must, in fact, be omitted from our own point of view, and what we are left to concern ourselves with in connection with the possibilities of our canals is mainly the traffic originating in, or destined for, the United Kingdom.

Looking next at the difference in physical conditions, we find on the Continent of Europe great natural navigable waterways, such as the Rhine, the Elbe, and the Danube, with which there is no possible comparison in the natural waterways of Great Britain; and one must remember that a large proportion of the Continental canals have been made in connection with these and other rivers, so that merchandise, carried in great quantities, can be sent by water from the sea into the very heart of Central Europe. In the British Isles there are neither such quantities to carry nor any such rivers to carry them on. We have the Thames, the Humber, the Severn, and others besides that are navigable; but in Hungary steamers and rafts alike can make a journey of 600 miles on the Danube between Dévény and the Roumanian frontier, and rafts can continue from the Danube along the Theiss as far as Tisza Ujlak—that is to say, for another 600 miles. In the German Empire

a few years ago the waterways available for traffic represented a total of 8,737 miles; but of this total, 5,776 miles were rivers and 1,451 miles were canalized rivers. The waterways alike of Belgium, Holland, Germany, Austria, Hungary, and Roumania constitute, in fact, natural and more or less continuous links and universal highways between East and West, and, in comparison with them, any possible developments brought about in our own country would necessarily be insignificant.

Nor does it follow that even on our smaller geographical scale the improvement of the canals of Great Britain would be as easy a matter as the provision or the betterment of waterways on the Continent. In the 'Financial and Commercial Supplement' of *The Times* of March 6, 1905, there was published an article on 'German Waterways' from a correspondent at Berlin, who, after remarking that—

To an Englishman living in this country the contrast between the activity of German waterways and the stagnation of those in England is a perpetual source of wonder,

went on to give some interesting facts concerning the traffic on the three rivers connecting Berlin and Hamburg—which cities are 230 English miles apart—and also the substantial fruit traffic carried to Berlin by water from Bohemia—a further distance of 450 English miles. These figures are noteworthy, in view of what I have already said on the greater length of haul which is possible in Continental waterways as compared with our own; but the remark of the correspondent to which I would especially direct attention is the following:

There are only three locks between Berlin and Hamburg—on the Spree and Havel. The Elbe has no locks.

Here we get a striking illustration of the important fact that (independently of the other considerations already dealt with) the waterways of the Continent, of which so much is heard, are mostly found either in flat countries or on level plains, which present comparatively few engineering

difficulties, and allow of construction or betterment being carried out at much lower cost than would otherwise be possible.* When, on the other hand, we look at the physical conditions which have had to be surmounted in the making of canals in a country such as England, we find an entirely different set of circumstances.

Begging the reader to bear in mind that, as the correspondent referred to above informs us, barges between Berlin and Hamburg, a distance of 230 miles, pass through only three locks, I would venture to inform him that on the canals and navigable waterways of England and Wales there are no fewer than 2,377 locks, an average of one lock for every $1\frac{1}{4}$ miles of navigation. The Rochdale Canal, which is only $34\frac{1}{2}$ miles long, has ninety-two locks in the 32 miles between Manchester and Sowerby Bridge. From the river Severn at Worcester to the summit level at Birmingham (which lies on the so-called 'backbone' of England) there is a rise of 425 feet to be overcome by the boats proceeding to the latter city by the Worcester and Birmingham Canal. This they do with the help of fifty-eight locks in a distance of 16 miles, included in these fifty-eight being the famous 'flight' of thirty (within 2 or 3 miles) at Tardebigge. Should the boats from the Severn be taken on from Birmingham to London, they will have to pass through the Farmer's Bridge locks on the south side of the city to get to a level lower by 80 feet on the Birmingham and Warwick Canal. From the river Severn at Stourport there is a rise of 132 feet, with twenty-one locks, by the Stafford and Worcester Canal to the Wolverhampton level of the Birmingham Canal. On the Huddersfield Narrow Canal there are seventy-four locks in 20 miles between Huddersfield and Ashton; and at Bingley, on the Leeds and Liverpool Canal, five 'staircase' locks

* This fact is specially pointed to by Herr Franz Ulrich in 'Staffeltarife und Wasserstrassen' in regard to the different conditions to be found within the limits of the German Empire. He shows that the construction of canals is only possible in districts already favoured by Nature in regard to their flatness, and that the effect is to handicap still further towns that are situated in hilly or backward country.

(that is, locks arranged in flights, without any intermediate pools) give a total lift of 59 feet 2 inches.

Taking the principal through routes of inland navigation in England, we get the following figures :

	Route.	Miles.	Locks.
London to Liverpool ...	1	244	252
" " " ...	2	256	190
" " " ...	3	267	282
" " Hull ...	1	282	164
" " " ...	2	305	148
" " the Severn ...	1*	177	130
" " " " ...	1†	191	102
" " " " ...	2†	219	230
Liverpool to the Severn ...	1†	160	84
" " " " ...	2†	189	162
" " Hull ...	1	187	104
" " " ...	2	159	149
" " " " ...	3	149	152
Birmingham to London ...	—	147	155
" " Liverpool ...	1	114	101
" " " " ...	2	91	71
" " Hull ...	—	164	66
" " the Severn ...	1†	75	61
" " " " ...	2†	89	49
" " " " ...	3†	98	61

The total capitalized cost of each lock may be put at, on an average, £1,360, and the time occupied by a boat in getting through will generally be about four minutes.

Then there are in England and Wales no fewer than forty-five canal tunnels which are upwards of 100 yards in length. Included in the forty-five are seven tunnels between 3,027 and 3,808 yards long, four between 2,042 and 2,926 yards, and five between 1,000 and 2,000 yards. In most of these tunnels a boat was passed through by the 'legging' process—that is to say, on each side of the boat a boatman lay on his back and pushed against the tunnel sides with his feet. At one time this work was done, not only by men, but by women.

* Avonmouth Docks

† Sharpness Docks.

In still other instances the inequalities of the land were overcome by aqueducts, which carried the canals across rivers or intervening valleys. The earliest of these was opened at Barton in 1761, having been built by James Brindley for the Duke of Bridgewater, to carry the Bridgewater Canal from Worsley to Manchester across the river Irwell, a stretch of 600 feet. It remained in use and in good preservation until 1893, when it was superseded by the present swing aqueduct at Barton, rendered necessary by the Manchester Ship Canal. Among other important canal aqueducts that might be mentioned are: the Lancaster aqueduct, completed by Rennie in 1796, 600 feet long, carrying the Lancaster Canal over the river Lune (cost £48,000); the Chirk, completed by Telford in 1801, 710 feet long, crossing the river Ceriog (cost £20,900); and the Pontcysyllte, completed by Telford in 1803, 1,007 feet long, carrying the Shropshire Union Canal over the Dee (cost £47,000).

As compared with such triumphs of engineering skill as these, the construction of canals on the plains of Northern Europe, or the building up of walls along the sides of the rivers, has been only day-labourer's work. But the most earnest advocate of the nationalization of British canals should now begin to realize that, not merely to buy them up, but to deepen and broaden them to meet modern requirements, might be a formidable undertaking, and one involving an expenditure per mile far in excess of that incurred by ordinary canal work on the Continent.

I have thus, I trust, established my point that in regard neither to commercial nor to physical conditions is there any fair basis of comparison between England and Wales and the lands of Northern Europe. Continental countries, as we see, handle big volumes of traffic over long distances on broad, natural waterways (and I would remind the reader of what I have already said in the chapter on 'The Railways of Germany' as to the special reasons why so much of the traffic there goes by water instead of by rail).

We, on the other hand, have got a traffic that is essentially railway traffic, and, as Sir Michael Hicks-Beach has pointed out, although we may not have natural waterways on the same scale, 'we are better supplied with railway accommodation than any Continental country.'

If the position here assumed be accepted, we are left to consider the case of British canals on their own merits, and on the basis of our national conditions, apart from any illogical arguments that, merely because such and such things are done in other countries, therefore they should be done here.

Passing on, then, to consider British canals from a British standpoint, we are at once met by the stock allegations that the railway companies first of all deliberately destroyed the traffic on the canals by unfair competition, then bought up cheaply either the most important of the canals, or essential links therein, and, finally, got such control over the system they had 'captured' that they were able to 'strangle' the whole of the inland water traffic.

No specific facts are ever advanced in support of these allegations, but editors of daily newspapers, authors of pamphlets, writers in monthly reviews, members of Chambers of Commerce, and readers of papers at Society of Arts conferences, have been repeating them with unquestioning simplicity for years past without offering a word of proof, or without appearing to think even that proof was needed. In one quarter only—so far as my reading goes—have I been able to find any fair recognition of the real facts of the case on the part of a public speaker on the canal problem; but the exception is a gentleman of such prolonged and extremely practical experience that his views outweigh those of a score of arm-chair theorists. The authority in question is Mr. F. Morton, member of the firm of Fellowes, Morton, and Clayton, Ltd., and a canal carrier—as he told me in the course of a most interesting conversation at Manchester—of no less than forty-five years' experience. Mr. Morton's views are not likely to be biassed

in favour of the railway companies, because every consignment, large or small, which, as the leading canal carrier of the day, he can possibly secure is in competition with the railways. Yet in a paper on 'British Canals: their Improvement and Better Utilization,' which he read to the members of the Chemical and Engineering Sections of the Manchester Chamber of Commerce on January 14, 1904, he said, on the question of railway ownership of canals :

It has been a common practice, especially on public platforms, to denounce railway companies, as if they were the great obstacles to canal improvement, and as if they were exercising their just rights as owners in an oppressive manner. Now, I venture to submit, with all deference to gentlemen holding a contrary opinion, that this is scarcely fair to the railway companies. In most of the cases they were originally compelled to acquire the canals; at the present time they are not receiving an adequate return (in some cases no return at all) for the capital expended, and I have little doubt that they would be glad to transfer the property on reasonable terms. With regard to the maintenance of these waterways, they are, speaking generally, in as good order as those belonging to canal companies pure and simple. Indeed, I could give examples based on my own experience where they are better kept. For example, if the Grand Junction Company had made the same provision for water as the North Staffordshire Railway Company (the owners of the Trent and Mersey Canal) have done, or if they had spent anything like the money in pumping, as the Birmingham Canal Company (which is as much a railway-owned canal as the Shropshire Union) are now doing, we should not have been obliged to forward nearly the whole of our London traffic from July, 1902, to February, 1903, via Oxford and the Thames, because there was no water in the canal passing over Tring summit for the boats to float in.

This is an absolutely fair and impartial statement of the facts of the case. When the railway system began to be developed in the forties, the view was entertained here that the canals would never survive the competition of the new means of locomotion. The same opinion was held in other countries, for Mr. Gastrell, Commercial Attaché to the British Embassy in Berlin, says in a report he has written on the waterways of Germany :

During the earlier period of the development of the railways, up to 1875, there existed in Germany, as in most other countries, a feeling that inland transport by water was doomed to languish, it being thought impossible that it should ever be able to compete with the extensive railway systems. Even the best-informed persons, in the early days of the German Empire after 1871, only believed in a survival of canal transport as competing, in certain districts, with the high roads.

If this were really the state of public opinion at the time, why should the British railway companies, as commercial undertakings, have voluntarily sunk substantial amounts of their capital—for which they had abundant use in creating their lines—in buying up canals in order to ‘strangle’ a form of competition which everybody believed was about to die a natural death? They were content to leave the stage-coaches to their fate; why did they not adopt the same policy with regard to the canals?

The answer is that they were not voluntary agents in the matter. Some of the large companies had already become possessed of canals as part of the property of smaller railway companies whose lines they had absorbed. In other instances the large railway companies, to meet the policy of canal companies who were threatening to start competing lines of railway, acquired proprietary rights in the canals, or bought off the threatened opposition by guaranteeing payment of interest. But, generally speaking, pressure was put on the railway companies by the canal companies themselves to take over the canals, and Parliament not only concurred in this arrangement as fair and equitable, but even in some instances enforced its adoption.

This was about the year 1848, and at that time Parliament did not even require of the railway companies that the canals should be efficiently maintained; but subsequently it directed that this should be done, and the actual position to-day is that the railway-owned canals are, on the whole, in a more efficient condition than many, if not most, of those that are owned by companies having no railway interests whatever to serve. The railway companies control ampler funds than the canal companies; they have their canal engineer, whose sole duty it is to look after the canals; their district goods agents are required to accept traffic as readily for the canals owned by the railway company as for the railway itself; while in their management of canals they are as much subject to the control of the Board of Trade as they are in regard to the management of the railways. The nature of the check thus held

over them is shown by the following extract from the Railway and Canal Traffic Act, 1888 :

When the canal of a canal company, or any part thereof, is intended to be stopped for more than two days, the company shall report to the Board of Trade, stating the time during which such stoppage is intended to last ; and when the same is re-opened, the company shall so report to the Board of Trade.

A company failing to comply with this section shall be liable, on summary conviction, to a fine not exceeding £5 for every day during which their default continues ; and any director, manager, and officer of the company who knowingly and wilfully authorizes or permits the default shall be liable, on summary conviction, to the like fine.

Apart from statutory obligations, one may further assume that railway companies which have put a considerable amount of capital into canals have at least desired to get interest thereon if they could.

To deal exhaustively with this phase of the subject would be beyond the limits of my space ; but by way of illustrating the general position, I would mention one or two facts as to the canals owned by the Great Western Railway Company. From the report for the half-year ending December 31, 1904, I find that the company's expenditure on canals in capital account down to that date had been as follows :

	£	s.	d.
Brecon	61,247	19	0
Bridgwater and Taunton ...	73,989	12	4
Grand Western	30,629	8	7
Kennet and Avon	209,434	12	7
Stourbridge Extension	49,436	15	0
Stratford-on-Avon	172,538	9	7
Swansea	148,861	17	6
Total	747,204	1	3

The revenue account for the half-year worked out thus :

To Canal Expenses—	£	s.	d.
Bridgwater and Taunton ...	1,663	3	0
Grand Western	164	7	9
Kennet and Avon	4,653	15	7
Monmouthshire	1,519	12	10
Stourbridge Extension	462	8	7
Stratford-on-Avon	1,164	4	3
Swansea	2,103	11	0
Total	11,731	3	0

By Canal Traffic—				£	s.	d.
Bridgwater and Taunton	...	...	...	728	14	0
Grand Western ...	...	...	...	118	5	2
Kennet and Avon ...	...	...	...	2,145	19	3
Monmouthshire ...	...	...	...	897	6	10
Stourbridge Extension...	...	...	...	757	19	6
Stratford-on-Avon ...	...	...	...	756	13	6
Swansea ...	...	...	...	2,883	10	11
Total ...	...	...	...	8,288	9	2

From these figures it will be seen that the only canals out of the seven that paid working expenses were the Stourbridge Extension and the Swansea, and that the net result of the year's operations was an adverse balance of over £3,000.

It may safely be assumed that the directors and officers of so exceptionally well-managed a commercial undertaking as the Great Western Railway would at least have avoided that loss of £3,000 on the half-year if there had been sufficient canal traffic forthcoming; and in this connection their experiences with one of the canals in the above list, the Kennet and Avon, may be regarded as illustrative of the circumstances and conditions generally applicable to canals owned by railway companies.

As I prefer to bring forward independent testimony when I can, I would venture to quote the following from an article on 'Derelict Canals: Some Curious Particulars,' published in the *Globe*, following on the failure of the attempt to sell the Basingstoke Canal by auction in October, 1904:

It is pitiable to see a splendid inland navigation, such as the Kennet and Avon, which passed to the Great Western Railway in 1852, practically disused, though—to do the company justice—it is kept in an excellent state of repair. This canal, 75½ miles in length, ought to be one of the most important of the country, for it completes the circuit of canals which link up the rivers Trent, Mersey, Severn, and Thames. In bygone days it supplied Bath and the whole extent of country up to Reading with West Country coal. It is a fine monument of engineering skill. Near Devizes there are no fewer than twenty-nine locks, with a total rise or fall of 235 feet, and fifteen of these locks are situated consecutively. The locks, together with the beautiful aqueducts at Dundas and Avoncliff, were designed by the elder Rennie. The dimensions of the canal are as follows: Width on surface, 44 feet; width at bottom, 24 feet; and depth, 6 feet.

I can supplement the correspondent's 'curious particulars' by some others concerning this canal which are no less interesting.

Constructed under an Act of Parliament passed in 1794, the Kennet and Avon Canal represents in effect a total navigable distance of $86\frac{1}{2}$ miles, made up as follows: River Kennet, Reading to Newbury, $18\frac{1}{2}$ miles; canal proper, Newbury to Bath, 57 miles; river Avon, Bath to Hanham Mills, 11 miles. It has also junctions with the Wilts and Berks Canal and the Somersetshire Coal Canal. The original capital, £420,000, was increased by subsequent Acts to £1,011,589. From 1814 to 1840 the traffic of the canal gradually increased, the dividend in 1840 being 30s. per share, equal to about 5 per cent. on cost. In 1840-1841 the Great Western Railway Company's line between Reading and Bath was opened, and during the five years following the canal company's receipts fell off about £62,000. In 1846 the canal company made an application to Parliament for powers to construct a line of railway parallel with the canal, under the title of the London, Newbury, and Bath Direct Railway. In this they were unsuccessful. They next availed themselves of the powers of the General Act of 1846, enabling canal companies to become carriers of goods on their canals, and they entered upon the carrying business in 1848. But the opening of the railway between Chippenham and Trowbridge in 1848-1850 led to a further falling off in the canal company's receipts during the three years ending May, 1851, to the extent of £17,845.

The canal proprietors then entered into negotiations with the Great Western Railway Company, with the result that in August, 1851, the former transferred the canal to the railway company on the latter agreeing to pay them annually 6s. per share on 24,577 shares, amounting in the aggregate to £7,373 per annum. The agreement was confirmed by the Great Western Act of 1852, which provided that the railway company should keep the canal at all

times open and in proper repair, and that if the canal tolls should be complained of (in comparison with the railway rates) as prejudicially affecting the traders, the Board of Trade should have power to fix such other tolls as it might think fit. Complaints were so made about 1867-1868, and the Board of Trade reduced the tolls by about $\frac{1}{4}$ d. per mile.

Further complaints were made in 1877, and the matter then went before the Railway Commissioners, to whom the traders represented that the traffic would largely increase if the tolls were further reduced. On the strength of these representations the Railway Commissioners removed certain articles—principally flour, grain, iron, malt, meat, salt, and timber—from Class 3 to Class 1, so that instead of paying 1d. per ton per mile on these articles, with a maximum of 6s., the traders would pay only $\frac{1}{2}$ d., with a maximum of 2s. The toll also on coal and certain other articles was reduced from 1d. per ton per mile, with a maximum of 5s. 3d., to $\frac{1}{2}$ d. per ton per mile, with a maximum of 1s. 4d. But the expectation of the traders that the traffic would largely increase on the concession of these very low terms was never realized, and the receipts from the canal have at no time since that date covered the working expenses. For the last three years the financial results have been as follows :

			Receipts.				Expenses.
			£				£
1902	...	...	5,092	...	...	...	8,436
1903	...	...	4,924	...	...	...	8,500
1904	...	...	4,538	...	...	...	9,205

There is no evidence in all this of the railway company having deliberately sought first to 'capture' the canal and then to 'strangle' the traffic. By the unprejudiced testimony of the *Globe* correspondent, the railway company have kept the canal in 'an excellent state of repair,' and the tolls charged, judging from the examples offered above, could not very well be lower; yet the traffic handled is altogether inadequate in volume to meet the cost of operation.

When we come to look into the question as to why in

England the traffic should have left the canals to so great an extent in favour of the railways, even under conditions where the canals have had a perfectly fair chance, as in that of the Kennet and Avon, we are met in the first place by the complete transformation which has come over the trading conditions of the country. I have dealt fully with these changes in Chapter VIII. in regard to railways; but all that I have said there as to the diminution in the size of consignments—because the majority of the traders now want smaller lots at frequent intervals, delivered to them with the despatch of letter or parcel post, instead of large quantities at longer intervals—has affected canals still more than it has affected the railways. The spreading of the total volume of trade over a larger area; the introduction of men of smaller capital, who can do with a few hundred-weights or a few tons of raw materials to serve immediate wants, but could not afford, or even find room for, a boat-load; the absolute necessity that the small stocks thus kept on hand should be replenished promptly, so that they may not get too low; and the increased facilities in the way both of quick conveyance and of direct delivery alike to manufacturers (with their private sidings) and to general traders, have all had a most powerful effect in diverting the stream of traffic from the waterways to the railways.

To compare past and present conditions, let us look for a moment at what actually happened in former days when a London coal merchant wanted to replenish his stock from a colliery situated 190 miles from London. He sent a telegram on, say, a Saturday, asking that so many boat-loads of coal should be forwarded at once. The vessels would be immediately loaded up with their 25 to 30 tons of coal each, and made ready to start for London at four o'clock on Sunday morning. Each narrow boat employed in this service would be hauled by one horse and manned by two boatpeople, with occasional assistance at flights of locks. Taking the average of a canal boat's work for each hour's travel throughout the year, the distance covered

would be under rather than over 2 miles an hour ; for such deductions as the following would have to be made on the year's record :

An average delay of three days for each of the twenty-four trips per year, owing to the boat having to await its turn for loading or for other causes						72 days.
Delayed by weather	...	...	...	...	...	10 "
Delayed by canal or boat repairs	...	...	...	...	...	8 "
Delayed by low water due to drought	...	...	...	...	...	6 "
Whitweek holidays	...	...	...	...	...	6 "
Unforeseen circumstances	...	...	...	...	...	3 "
						105 "

Although, therefore, the boatpeople are essentially industrious, have no trade union to prevent them from overworking themselves, and generally keep going from 4 a.m. till 8 p.m., their day's progress at the rate of 2 miles an hour is not great, and the journey of the boats in question would work out thus for the round journey :

Outward Journey.	Boat Hauled (Hours).	Distance Covered (Miles).
1st day, Sunday	14	28
2nd ,, Monday	14	28
3rd ,, Tuesday	14	28
4th ,, Wednesday	14	28
5th ,, Thursday	14	28
6th ,, Friday	14	28
7th ,, Saturday	14	22
8th ,, Sunday	—	—
Total	98	190
Return Journey (after Unloading).		
9th day, Monday	14	22
10th ,, Tuesday	14	28
11th ,, Wednesday	14	28
12th ,, Thursday	14	28
13th ,, Friday	14	28
14th ,, Saturday	14	28
15th ,, Sunday	14	28
Totals for 15 days' round journey	196	380

There is no need for me to go into details as to how long a locomotive would take to bring a train-load of coal 190 miles to London ; but there are some other considerations of especial importance that should be borne in mind. The dealer receiving his coal by canal must order it by the boat-load, accept delivery of it at the canal side, transfer it at once from the canal boat to his own vehicles, and cart it in bulk to his depot (in the south of London, perhaps, whereas the canal may be in the north) ; while at his depot he must provide space for large quantities of each particular sort of coal which he keeps on stock. In this way the cost of cartage is heavy, he has a good deal of capital lying idle, and he requires extensive accommodation in districts where land may be especially valuable.

Under the present-day system of operation a railway company will bring a train of coal, loaded direct into the trucks at the collieries in the Midlands or the North, to sidings outside London, where the coal may remain six days without charge for demurrage, awaiting the orders of the coal merchants, who will direct from day to day that one or more waggons containing particular kinds of coal be sent to specified London or suburban stations, according to the requirements of their local branches. Should there be sufficient orders on hand, the coal on its arrival at the local station can be shovelled direct into the sacks from the waggons,* and thence taken at once to the customers. If the entire truck-load has not been already disposed of, the remainder may, under arrangement with the railway company, be dumped down on the open space near to the sidings, and removed thence as required. In effect, the railway companies themselves provide a general coal depot at practically every London, suburban, and country station ; and though in the country a small charge is made, it is one of the anomalies of railway working that

* An important matter of detail, as affecting cost of operation, is that it is easier to transfer coal from truck to sack on the same level than from canal boat to sack on different levels.

the London coal dealers should get this accommodation for nothing.

Under these conditions there is obviously no comparison between the relative advantages of the two methods of transport, from the point of view at least of the average coal merchant, who, thanks to the railways, can carry on an extensive concern without having more than his local offices near to the railway-stations, and a certain amount of 'wharfage' accommodation on the railway premises. A larger business can be done with less trouble and moderate expenses, while the householder should benefit as well as the dealer. Whatever good a revival of English canals might do, it certainly is not wanted in the interests of the domestic coal-supply; and if any of my readers should still doubt my assertion on this point, I would advise them to ask their local coal merchant, when they give him their next order, if he would be disposed to abandon the railways in favour of the canals!

The remarks I have made respecting the coal trade apply with no less force, though with varying circumstances, to the changed conditions of many another branch of retail trade. Bricks, stone, timber, tiles, drain-pipes, and road-making materials can all be handled more conveniently by rail than by canal, for they can be taken in just such quantities as may be required for immediate or early use to some convenient station, where they will be within easy reach of the particular spot or locality where they are wanted. It might be cheaper to send building materials, say, from Yorkshire to London by canal than by rail; but the builder engaged on work in the City, or in the neighbourhood of the Crystal Palace, would fail to appreciate the arrangement if he had to send for them to the terminus, say, of the Grand Junction Canal at Limehouse. To him the question of convenience is much more important than the question of freight, especially as he draws from all parts of the country the raw materials which can be delivered to him by the railways at almost any railway-station that will suit him best.

It may be replied that, although there is force in these arguments, improved canal facilities would be an advantage to manufacturers, in enabling them to get their raw products at lesser cost for transport. Here I certainly agree, provided that the canal boat can load up with the raw products alongside an ocean-going vessel in the dock, and deliver them direct to works that are situated on the side of the canal banks.

The fact is that, as regards commodities in bulk, the difference between water transport and rail transport is very often a difference in terminal or cartage expenses, rather than a difference in the respective costs of the two methods of haulage. This fact comes out in strong relief in connection with the Shropshire Union Canal (in which the London and North - Western Railway Company are largely interested) and the port of Liverpool. Barges can load up in the Liverpool docks with wheat alongside the steamers from Canada, and proceed *viâ* the Mersey to Ellesmere Port. There the wheat is transferred to canal boats, in which it goes inland to the millers whose mills are situated on the canal banks. In these circumstances the London and North - Western Company, as an owner of railways, simply cannot compete with itself as an owner of canals for this particular traffic. If the wheat were carried by rail, it would have to be carted from the steamer to the railway truck, since the latter could not get alongside; and this difficulty at Liverpool would still remain even if the railway lines ran on to a private siding at the other end. But assume that the conditions were equalized. Assume that the mills were situated so far from the canal that the wheat had to be carted to them from the canal. This would be an equivalent to the cartage from steamer to railway truck at Liverpool. Or assume, alternatively, that the railway truck could be loaded alongside the steamer in the Liverpool docks and unloaded on the miller's private siding. The conditions as regards railway and waterway would then be equal, and in that case

the canal would have a very poor chance of competing with the railway.*

I would especially impress these facts on the mind of the reader, because they are of very wide significance in regard to that transport of heavy or bulky materials for manufacturing purposes which is the *raison d'être* for much of the agitation in favour of a revival of canals. There is a general idea that transport by water must necessarily be cheaper than transport by rail; but if we consider the question of transport alone, apart from subsidiary expenses, the result may be very different from what most people would assume.

There lies before me an elaborate analysis of canal operation drawn up by Mr. W. B. Cook, C.E., in support of a scheme propounded by him for utilizing long-distance canals as 'canal-boat railways,' and supplementing them by collecting and distributing short-distance canals. There is no need for me to discuss the merits of this scheme here; but in his statement as to present conditions he shows with much detail that the cost per boat mile of operating a 25-ton to 30-ton narrow boat is 50 per cent. more than the corresponding railway charges. This would seem, however, to be quite a modest estimate, for in the course of the paper read by him at Manchester, to which I have already referred, Mr. Morton said, in reference to the limitations of narrow-gauge canals, where only boats 7 feet wide can pass (and this is the case as regards all the business between the Trent and London):

I have been at some trouble to get at the comparative cost of haulage on a canal such as I am referring to and the cost of rail, and to you, gentlemen, who have read the various articles and pamphlets which have been written on this subject, the result which I am about to put before you will be somewhat startling—viz., that the cost by canal is quite six times as much as it is on the railway. I have been enabled to verify this within the last few days by taking the actual cost of boats

* The moral of this particular illustration is that, if the civic and port authorities of Liverpool were to combine with the various railway companies in providing facilities by means of which railway trucks could run alongside ocean-going steamers in the Canada docks, so that merchandise could be transferred direct from the one to the other

conveying coal from the Nottinghamshire coalfield, passing through the locks at Foxton and Watford, and find that, although two boats were hauled by only one horse, the cost came out 0.29d. per ton per mile, while the cost by rail would not exceed 0.05d. The cost of steam haulage on the Bridgwater Canal, with four flats behind a tug, works out at 0.15d. per ton per mile.

This important question of the comparative cost of transport by water and by rail is further dealt with by Mr. Hugh O'Beirne in a report on French navigable waterways issued by the Foreign Office in 1903. Mr. O'Beirne says:

Mr. C. Colson, a former director of the Railway Department of the Ministry of Public Works, and probably one of the best authorities on this subject, estimates that in most cases in France the net cost of transport (the cost, that is, exclusive of any profit for the railway company or the proprietor or lessee of the canal) is appreciably higher by water than by rail. Since this question lies at the root of the whole controversy as to the economical value of waterways, it may be worth while to follow Mr. Colson's calculations somewhat into detail.

The net cost of transport by water is represented approximately by the freight paid to the barge-owners, since competition prevents the latter from making any profit over and above a return on their small capital, their own remuneration and keep, and their current expenses. On the best channels the freight is about 1 centime per ton per kilometre, oftener above than below this figure.

On the railways, the running expenses (*dépenses d'exploitation*) of a goods train, according to the returns published in 1896, are 2.27 francs (1s. 9½d.) per kilometre; and taking the average tonnage carried at 94 tons, we should have a cost of transport of 2.42 centimes (nearly ¼d.) per ton. But this estimate of expenses includes certain items which are not comprised in the 1 centime cost of water transport, and which should be omitted for the purpose of this comparison. Such are:

The up-keep of the line and cost of administration (which items are borne by the State in the case of waterways);

The cost of loading and unloading (which is generally borne by the proprietor or consignee in the case of waterways).

Omitting these items, Mr. Colson estimates that the running expenses of a goods train, including interest on the value of the rolling stock, are about 1.50 francs (1s. 2½d.) to 2 francs (1s. 7½d.) per kilometre.

On the other hand, the average tonnage carried in the case of the railways competing with the chief waterways greatly exceeds 94 tons.

(instead of having to be carried, as at present, from the docks on one side of a street to the railway depots on the other side), a much more practical boon would be conferred on the traders of the country as a whole, by reducing, if not by wiping out, the cartage charges at Liverpool, than would result from the investment of any amount of municipal money in the widening and deepening, say, of either the Shropshire Union or the Leeds and Liverpool Canal.

That figure is arrived at by taking the average of all trains, including those running on mountain lines and subsidiary lines, which can never come into competition with canals. On the chief lines, which actually compete with the waterways, the average tonnage carried by a goods train (including trucks returning empty) Mr. Colson puts at 300 tons, and thus arrives at a net cost of transport of from $\frac{8}{10}$ to $\frac{8}{10}$ centime per kilometre per ton by train, as against 1 centime per kilometre per ton by water.

It would follow that in a war of rates between a railway and a canal owned by a company, which depended upon tolls for its profits, the railway could always lower its charges to a point ruinous to the waterway. And this is what actually occurred in a struggle some years ago between the Canal du Midi and the Midi Railway Company, which ended in the lease of the canal to the railway, after which the railway found it profitable to attract most of its traffic to the railway as being the more economical mode of transport.

These facts may not have been realized by the writers of articles and pamphlets, but they are fully recognised by experts in the world both of railways and of canals. 'It is the cost of haulage,' one canal manager in the North of England remarked to me in the course of conversation on this subject, 'that kills us. To move 300 tons, which a single locomotive would take to its destination in eight hours, we want twelve boats, twenty-four men, and twelve horses, with an allowance of four days in which to do the journey. When, to compete with the railways in the matter of speed, we put on "fly" boats, we want relays of men and horses at various points, so that we can keep the boats going day and night, a journey that would otherwise last about three days being thus done in thirty-eight hours. But we cannot charge any higher rate for this express service. If we did, the trader would probably give the traffic altogether to the railways. He would consider that the still quicker service was well worth the difference in rate. The margin for profit thus becomes very small'; while the margin of difference between canal tolls and railway rates may, as I have already shown, disappear altogether under the operation of extra cartage in the case of the canal as against the railway.

Another fact with which those who argue that canals should be used for 'heavy' traffic, and the railways left to handle general goods, may not be acquainted is that

precisely the opposite tendencies have been in operation. The railways secured a large proportion of the coal and mineral traffic, partly because they represented the 'more economical mode of transport,' and partly because the railway facilities suited the manufacturers better than the canal facilities, while the traffic itself, though carried at low rates, was generally available in larger quantities and involved less trouble than ordinary merchandise. When the canal companies found they were thus losing their heavy traffic, some of them took advantage of the powers conferred on them by the Act of 1846 to become common carriers. They set up their own depots, organized a delivery service, and captured a good deal of the general goods business in localities which could be conveniently reached from the canals. So much was this the case that one canal carrier remarked in those days to the then general manager of the Great Western Railway Company, 'What you have done has been to kick us upstairs.' Even to-day there are canal companies who carry considerable quantities of groceries and general goods for shopkeepers to whom delivery can be effected from the canal depots. Most of the traffic of this type between Liverpool and Chester, for example, still goes by the regular services of boats on the Shropshire Union Canal.

The reader must see from the various considerations already advanced that traffic may have left the canals for reasons in no way met by the ever repeated, but never proved, accusations that they were first captured and then strangled by the railway companies. There have been other causes at work, and some of these are thus referred to by Mr. Henry Rudolph de Salis in 'Bradshaw's Canals and Navigable Rivers of England and Wales' (1904):

Canals in their day reached a far greater pitch of prosperity than the railways have ever attained to, but they suffered fatally, and do so now, from the want of any serious movement towards their becoming a united system of communication. Each navigation was constructed purely as a local concern; and the gauge of locks and depth of water was generally decided by local circumstances or the fancy of the

constructors, without any regard for uniformity. The same ideas of exclusiveness appear to have become perpetuated in the system of canal management. There is no canal clearing-house, and, with few exceptions, every boat-owner has to deal separately with the management of every navigation over which he trades. It is only since 1897 that the four canal companies forming the route between London and Birmingham have made arrangements by which through tolls can be quoted by the Grand Junction Canal Company, who own the largest portion of this route.

Among still other factors in the general situation must be reckoned the possibilities of drought, frost, and subsidences. As regards the first of these, Mr. de Salis points out in his book that—

The provision of an adequate supply of water to canals is often an expensive matter. Each time a vessel passes through a summit level or highest pound of a canal it consumes two locks of water—that is to say, a lock full at each end—which has to be replaced, but which amount of water will—theoretically, at any rate—suffice for working all the locks for the passage of that vessel below the highest lock on each side of the summit level. To maintain the supply of water to the summit level of a canal, impounding reservoirs are generally provided to store the rainfall from as large an area as possible for use as required, the supply from the reservoirs being often supplemented by pumping from wells and from streams where available.

In times of drought, however, the water-supply for the canals may be altogether inadequate, and traffic may then have to go by another route, or else be handed over by the canal company to the railways. On the river Trent lowness of water has led to goods taking fourteen days on the journey from Hull to Nottingham.

As concerns the possibilities of frost, the winter of 1904-1905 was not a severe one, but the frost was sufficiently keen to freeze up the canals over an extensive area of country, and stop the traffic on them for two separate periods of a week each. Subsidences, again, constitute a serious danger in certain districts. The Leeds and Liverpool Canal Company, for instance, had to spend on subsidences £2,445 during the first half of 1904, and £2,077 during the second.

Finally, on this branch of the subject, it should be remembered that the various causes here specified as operating to prejudice the welfare of English canals have affected not

only those controlled by railway companies, but also, if not still more (except in the case of certain specially-favoured waterways, such as the Aire and Calder), canals that are in no way controlled by railway companies. I notice, as I write these lines, that at the half-yearly meeting of the Leeds and Liverpool Canal Company, referred to above, held on March 17, 1905, the chairman, Mr. H. F. Killick, remarked :

The Leeds and Liverpool Canal was not a moribund and decaying carrying concern like other canals. On the contrary, their ton mileage tended to increase; and if their gross receipts did not do the same, it was because their earnings per ton per mile for rates and tolls were not as much as they were formerly, and because their outgoings for interest and expenses were high. They were now fully equipped as regarded carrying and transhipping plant.

Yet the ordinary shareholders get only 1 per cent. for the year, though possibly they are glad to have a dividend even so small as that, considering that they had none at all in the four years preceding. The credit balance of the Rochdale Canal Company, which stood at £23,228 in 1888, was only £3,087 in 1904; and that of the Stafford and Worcester decreased in the same period from £9,259 to £4,838.

To much that I have hitherto said the reply of my critics will be that if the canals were widened and deepened, and made of uniform gauge, their usefulness would return to them. Here we come to the different sets of advocates of this policy as represented by those who favour the nationalization of the canals, and by those who recommend that the matter shall be taken in hand by the local authorities.

If by nationalization is meant that the State should take over the whole of the existing canals, and subject them all to the aforesaid processes of widening, deepening, and uniformity of gauge, then I can only say that a more impracticable scheme has rarely, if ever, been put before the British public. Many of the existing canals, constructed to serve purely local purposes, could serve no other purpose now, however large a sum of money might be spent on

them. As one example among others, we may take the case of the Basingstoke Canal, which was built in 1794, and goes a distance of nearly 70 miles from the Thames, near Weybridge, to the town of Basingstoke, but no further. It is a picturesque survival of old-world traditions; but when, in October, 1904, it was put up for sale by auction, in London, by order of the High Court of Chancery, a canal which had cost £165,000 to construct failed to get even a £20,000 bid. Under the nationalization scheme that some enthusiasts are propounding, canals of this type, which practical men consider valueless as canals, are apparently to be taken in hand by the State, and have a large sum of money spent upon them, without any real consideration for the amount of traffic they could reasonably hope to secure. Alternatively, certain selected routes only might be dealt with; but this hardly accords with the idea of 'nationalization.'

As regards action by local authorities, one must be prepared to accept the position that, commercially speaking, canals which would answer local purposes only are now mostly as dead as the dodo; but while there might be a chance for canals which would carry through traffic, say from Birmingham to London, Liverpool, or Hull for shipment, it is inconceivable that the local authorities in the districts between those places would concern themselves about, or even help to provide water for, a canal in the interests of traders in Birmingham. Even if they were so willing, the ownership of the canals between Birmingham and the ports mentioned would be split up between a group of local authorities, each owning a certain number of miles of route—a state of things worse than that already existing, under which the through consignment may pass along the separate systems of four or five different canal companies. The intervention, again, of the local authorities would involve a municipal trading scheme of the most complex and the most formidable type; while the ability of the average county councillor to master and to control the

complicated traffic conditions of the country, in such leisure time as he could spare from his own business, is open to question, even if one might depend on his freedom from all local or personal prejudices for or against particular branches of industry or commerce.

The probable cost of nationalizing even such part of the canal system of the country as may be thought worth preserving has been the subject of various estimates. In different quarters it has been put at £16,975,000, £23,000,000, and 'about £50,000,000.' There is a good deal of margin between these figures, and I must leave the experts to decide which calculation is the most trustworthy. But I would remind the reader of the details I gave at the outset as to the physical difficulties which the original creators of our canal system had to overcome, and I would suggest that, if all this work has to be done over again—that is to say, not merely the widening and deepening of the canals, but the reconstruction of locks, the expansion of tunnels, the rebuilding of viaducts, etc.—a really generous estimate of the possible cost will have to be made.

One must further remember that some of the canals to which the plea for betterment might specially apply pass through cities, towns, or districts where, as both railway and tramway companies know to their cost, 'widenings' are apt to represent a pretty expensive business. The Birmingham Canal goes through the heart of Birmingham; the broadening of the Shropshire Union Canal would necessitate the destruction of a good deal of property in Chester; densely-populated localities have grown up alongside the Leeds and Liverpool; and so on with other canal systems which would have to be included in any really comprehensive scheme.

Then it has been urged in various quarters that the present drawbacks in regard to slowness of speed could be overcome by the employment of motors instead of horses. But the stronger wash from the motors would be disastrous to the sides of the canals, where these consist of earth only,

so that, apart from any question as to the use of larger boats, increased speed would in itself render indispensable a general reconstruction.

In the circumstances, I am inclined to think that 'about £50,000,000' is likely to be much nearer the mark, as representing the probable cost of nationalization, than the lower figures mentioned. There is the greater reason to adopt this view because experts who are not at all disposed to exaggerate have estimated that the carrying out of a modified scheme, favoured by them, for the widening and deepening of the canals between the Thames and the Mersey, would alone involve an expenditure of £17,000,000.

It is admitted on all hands that there is no possible hope of raising money from private sources to pay the cost of British canal restoration, whatever the precise number of millions that may be required. After the experiences which investors, small and great, have had with the Manchester Ship Canal, he would be a bold man who ventured to ask them to put money into fresh canal ventures during the next ten or twenty years at least. The needful millions must, therefore, be either provided by State or local authorities, or, alternatively, be 'guaranteed' by the State; though it is not quite clear what the State is to guarantee, and to what extent the taxpayer may or may not be committed, whether in the way of providing funds or covering losses.

The adoption of any one of these three courses would represent an absolutely new phase of our national policy, which, though it may have approved the principle of municipal tramways, has hitherto left the general transport traffic of the country to private enterprise, and has allowed investors to sink considerably over one thousand millions sterling in British railways, without giving them the faintest reason to suppose the day might one day come when the State would buy up, or allow local authorities to buy up, moribund or wholly derelict canals, and exploit them in direct opposition to railway companies, who already had to bear unfair

comparison with State-owned or State-aided railway systems on the Continent of Europe, and were at the same time the largest of all contributors to the local taxation of the country.

A new departure such as this could be resolved upon only after the most careful consideration, and, one would think, as the result only of urgent public necessity. But I would venture to suggest in all humility that, although the State might spend, or encourage the spending of, any number of millions sterling on the improvement of the canals, it could not set back the hands of the commercial clock, and guarantee that the traders of the country, or even any considerable proportion of them, would discard the railways in favour of what, in spite of all improvements, would still be the slower locomotion of the waterways.

Some traders might benefit, and especially those within easy reach of canals who receive consignments of a 'not urgent' class; but, taking the traders of the country as a whole, speed in the transport of goods is a far more important consideration here than a slight saving in cost. The constant cry of the Liverpool meat importer—if I may take that individual as a type—is, not for lower railway rates, but for the quickest and most efficient service the railway companies can provide. In point of fact, frozen or chilled meat will pass to and fro between Liverpool and London, according to market conditions, as though the mere item of railway rates did not count at all. There are many other traders who, though not dealing in perishables, want a service equally efficient, and to meet their requirements railway companies are now providing, for their quick goods trains, trucks built on frames fitted with automatic brakes, oil instead of grease boxes, and the other arrangements of ordinary passenger-car frames, so that they may be capable of running a speed of at least 45 miles an hour.

Are the traders of the country in general willing to forego these advantages, and abandon their practice of receiving small consignments at frequent intervals and at practically

express speed, in favour of large and less frequent consignments by boat, and taking any number of days up to a week or so to deliver? If their factories, their warehouses, or their shops, are not now located within easy reach of a canal, would they be prepared to remove them there in order to secure any saving there might be as between railway rates and canal tolls? In that case, would they, in discarding the railways, rearrange their business methods still further, so that they would no longer need the railway warehouse accommodation which at present they find so extremely convenient and so very inexpensive?

Alternatively, do the traders whose factories, warehouses, shops, and coal-yards are already located alongside or within easy reach of the canals, and who would directly benefit from improved water transport, form a sufficiently large and important minority to warrant the Imperial or local authorities in incurring serious financial obligations in respect to the canals—obligations which could hardly be without their effect on the national finance—and in completely changing the policy of the country in matters of transport? Considering the general character of our trade, and the absence here alike of the transit traffic carried on the Continent, and of the huge domestic consignments also transported there for such long distances, is there a reasonable probability that the revived waterways would, not simply draw traffic from the railways to the detriment of the latter, but create new traffic in such volume as both to yield a direct return on the outlay, and to afford adequate compensation from a national standpoint for the obligations undertaken and the changes brought about?

These are questions deserving of consideration; and, whatever answer may be given to them, it cannot be denied that many traders are supporting the agitation in favour of canal revival, not because they have the slightest idea of reorganizing their businesses on a canal-transport basis, but because they think the said revival—whether at the cost of the taxpayer or otherwise—would be a means of

coercing the railway companies into conceding reductions in rates which they do not now feel able to grant.

In the circumstances, it may be hoped that the nation will not commit itself to any costly expenditure without the fullest deliberation on the subject in all its bearings; and from this point of view I would make the following suggestion, which seems to me sufficiently practical in its way: If the country is really disposed to expend, if not to sacrifice, anything up to £50,000,000 sterling in order to cheapen the means of transport in the interests of certain classes of traders, would it not be better—as an alternative to doubtful schemes of canal revival—to reduce somewhat the financial burdens and the statutory obligations now imposed both on canal companies and on railway companies, placing them, by means of such relief, in a better position alike to keep their working expenses at a lower level and to give increased facilities and decreased rates to the general body of traders who patronize them?

Whether or not local authorities should spend money on the canals in order to increase their usefulness is, at least, a debatable point; but there is no doubt as to the present desire of local authorities to get out of the canals, as well as out of the railways, as much money as they possibly can in the form of local taxation, to the serious detriment of the said usefulness. At the meeting of the Leeds and Liverpool Canal Company in March, 1905, the chairman told how 'the entire earnings for the whole of 1904 amounted to £45,384, out of which they had paid in local rates £8,794, or 20 per cent. of the earnings.' On this same subject Mr. Killick said at the previous half-yearly meeting in September, 1904:

Out of the ninety townships that we traverse, the rates in the pound are increased in no less than fifty-two. What I blame and complain of is the system, and not the Assessment Committees or their advisers. Our letting value can only be ascertained by a series of disputable and hypothetical calculations, and the test of our letting value cannot be justly applied to each fragment of our canal in a separate township, when such fragments never are and never will be separately let. Nothing has been done by the Government to relieve us, although a

Bill was promised; and when any improvement of the canal can be immediately seized upon as a basis for higher assessment, our rating liability is a distinct impediment to any effort in that direction.

As regards legislative obligations, I content myself with the following pregnant sentence from a report of the meeting in March, 1905, of the same canal company :

Mr. F. W. Slingsby said that if the gentlemen who talked about the nationalization of canals would meet and get the Railway and Canal Traffic Act repealed, they would be doing some good in the way of utilizing the canals of the country.

Additional food for reflection will be found in a later part of the report on French waterways by Mr. O'Beirne, who adds to the remarks I have already quoted :

The further question arises whether the same increase in facilities and cheapness of transport could not have been obtained in a more economical manner than by the works of construction and improvement which have been carried out on the waterways. Might not the result which the State has attained by building and maintaining canals to compete with the railways have been secured at less expense by other means ?

It has been estimated that the capital expended up to 1896 in the construction and equipment of the great French railway lines, including stations, warehouses, etc., and the cost of rolling stock, represents roughly £27,520 per mile, which will be found to be somewhat below the cost of constructing a not particularly expensive canal. We have seen that the net cost of transport by rail on the principal lines is, according to Mr. Colson's estimate, appreciably less than by water; and though we may count as a partial set-off the superior cost of keeping up a railway line, the balance of cheapness remains on the side of the railway in respect of working expenses as well as of initial outlay.

In regard to the facilities offered, again, the railways have the advantage, for, though the waterways present certain special advantages as to space available for loading and discharging, cheapness of floating storage, economy in transshipment from sea-going vessels, etc., the railway has the overwhelming merits of greater speed, ability to handle a larger body of traffic in a given time, and security from interruption.

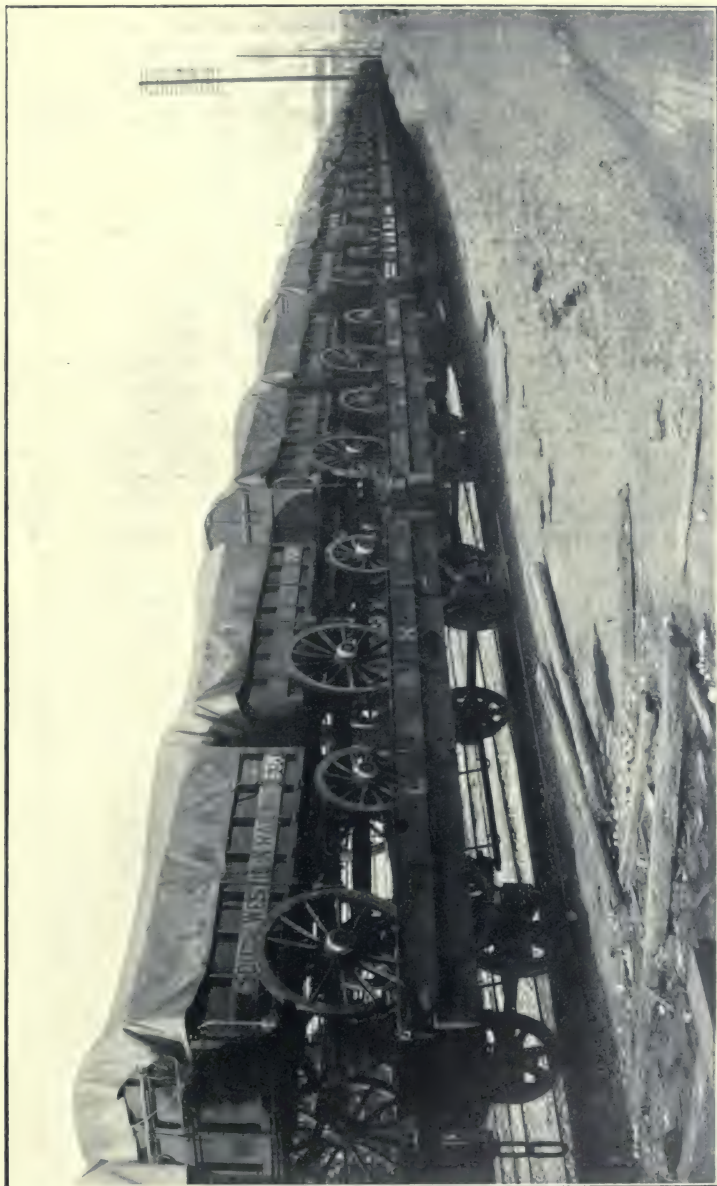
We see, then, that where the State has created canals to compete with the railroads, it would actually have been cheaper, and also more advantageous, to build entirely new competing railway lines. Even in the case of a natural waterway specially adapted for navigation, such as the Seine, the money which, as we found, has been expended to obtain first-class navigable conditions, represents the cost of establishing a new railway line on a cheap scale and under favourable circumstances. On the other hand, the expense of enlarging the capacity of an existing railway line is small as compared with that of building a new line even

under the cheapest conditions ; and therefore, if the State, instead of using its funds to create, improve, and maintain waterways to compete with the railroads, had applied them to increasing the capacity of existing railways, and had used its controlling powers to bring railway rates to the level which they have actually reached under competition, it would seem that the same results would have been attained at a large saving of public money.

In this country it is a matter not so much of increasing the capacity of existing railways as of securing such a decrease in the amount, especially, of working expenses, as will allow of more economical operation, and, consequently, the placing of the companies in a better position to concede rate reductions. What the traders themselves can do in this direction, by supplying the railways with paying loads, I have already shown in the concluding chapter of the present volume. What the Legislature and the local authorities can do in the way of giving both railway and canal companies some relief to their present financial and other burdens has also been made clear. I would, therefore, now bring these observations to a close by paraphrasing the question put by Mr. O'Beirne in the extract given above, and asking: ' Might not the cheapening of the means of transport—which it is proposed to obtain by spending millions of pounds sterling on the revival of obsolete canals no longer adapted to the special conditions of British trade—be secured at less expense by other means ?'

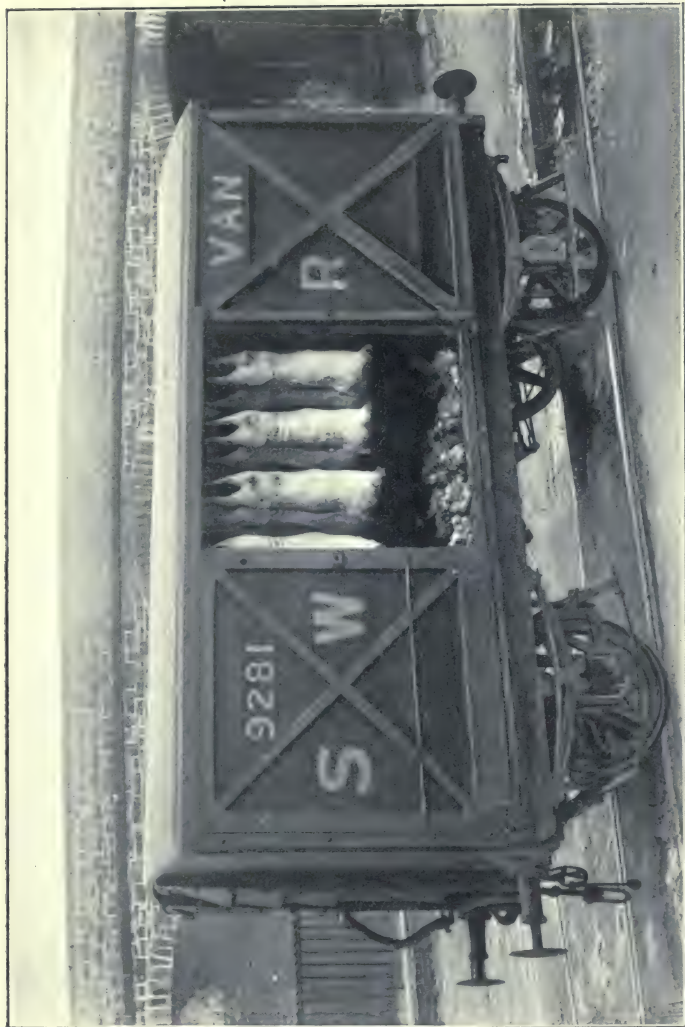
THE SOUTHAMPTON CASE.

The photographs here reproduced will enable the reader to realize more readily the facts I have given in Chapter IX. in connection with the Southampton case. Those referring to the English cheese traffic have also a bearing on the statements made on this subject on page 103.



AMERICAN MEAT TRAIN : SOUTHAMPTON DOCKS TO LONDON.

No handling of meat performed by railway company, either at Docks or Nine Elms Station, London, where the road vans are horsed and taken direct to market. Two road vehicles loaded on one railway wagon will each contain, on an average, between 3 and 4 tons of meat.



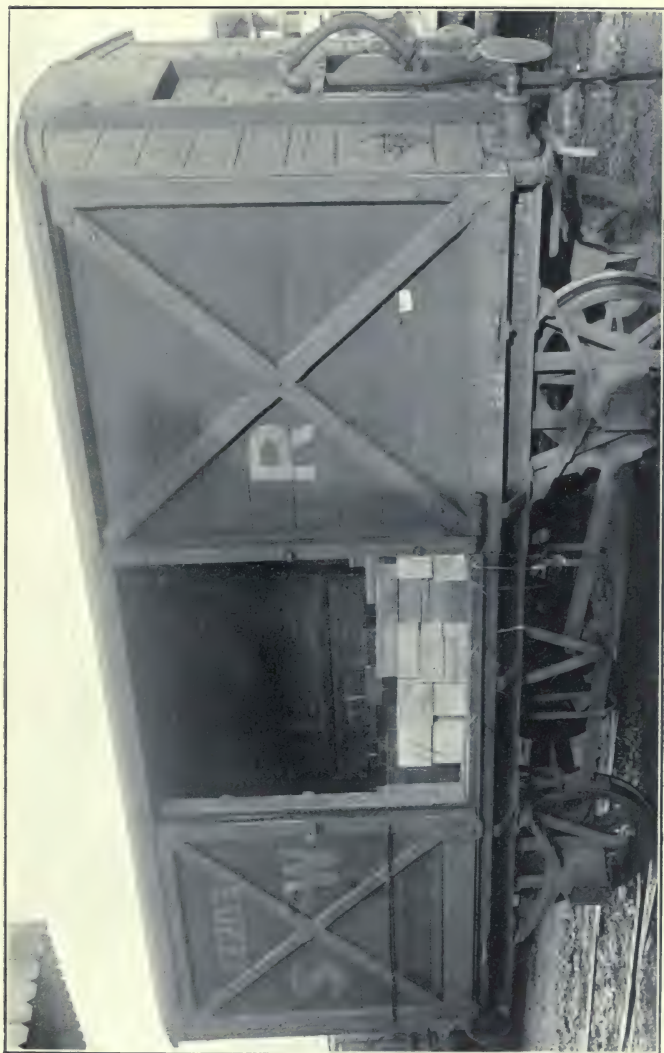
ENGLISH MEAT VAN: SOUTH DEVON TO LONDON.

Van loaded at wayside station. Full load of sixty sheep, each carcase separately hung on hooks, with offal loose at bottom of wagon. Carrying capacity of wagon, 8 tons. Actual weight carried, 1 ton 18 cwt. 3 qrs.



FOREIGN BUTTER.

Load, 797 strong wooden boxes of uniform size, giving total weight in wagon of 10 tons.



ENGLISH BUTTER.

In hampers, cardboard boxes, or wooden boxes. Carrying capacity of waggon, 10 tons. Actual weight of load, 2 tons 14 cwt. 2 qrs.



ENGLISH CHEESE.

Representative load from English cheese-sending stations. Comprises 169 loose cheeses. Carrying capacity of waggon, 10 tons. Actual weight of consignments, 1 ton 7 cwt. 2 qrs. 8 lbs. Nature of cheese would not permit of a much heavier load. Foreign cheese is packed in strong wooden boxes, which can be loaded up like the boxes of foreign butter.



ENGLISH CHEESE.

Box waggon containing seventy-three loose cheeses. Carrying capacity, 10 tons. Actual load, 1 ton 14 cwt. 14lbs.

To face p. 358.



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